

The Boston Medical and Surgical Journal

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Original Articles.

AN OPPORTUNITY TO ENLIGHTEN HOSPITAL TRUSTEES.

BY CHANNING FROTHINGHAM, M.D., BOSTON.

SYPHILIS is an important disease because it can be transmitted quite readily from one individual to another while the patient is well enough to be about, because it may be transmitted to a fetus before birth, because it is responsible for many of the cases in our insane asylums, and finally because it is an important cause of death through its action upon the aorta and the blood vessels throughout the body, especially in the brain and the heart.

The exact duration of the period in which the disease may be transmitted from one individual to another is not definitely established, but it is known that with appropriate treatment the vast majority of lesions from which infection might take place are relatively quickly removed, and the source of danger from an infected patient thus tremendously reduced.

It would therefore be an important factor in the attempt to eliminate this disease if the infected ones could be isolated somewhat during that stage of the disease in which they are the more dangerous to the community. In this regard it is interesting to note the rules in regard to the admission of cases of acute syphilis to the wards of some of the prominent hospitals in Massachusetts.

Twenty-seven hospitals were asked if they admitted cases of syphilis in the acute stages and fifteen of them reported that there are hospital rules against the admission of such cases. These fifteen hospitals are:

Beverly Hospital, Beverly, Mass.
 Brockton Hospital, Brockton, Mass.
 Carney Hospital, South Boston, Mass.
 Clinton Hospital, Clinton, Mass.
 Burbank Hospital, Fitchburg, Mass.
 Benjamin Stickney Cable Memorial Hospital, Ipswich, Mass.
 Lowell General Hospital, Lowell, Mass.
 Lynn Hospital, Lynn, Mass.
 Malden Hospital, Malden, Mass.
 Anna Jaques Hospital, Newburyport, Mass.
 Salem Hospital, Salem, Mass.
 Springfield Hospital, Springfield, Mass.
 Morton Hospital, Taunton, Mass.
 Winchester Hospital, Winchester, Mass.
 Boston City Hospital, Boston, Mass.

Two hospitals, The Cambridge City Hospital, Cambridge, Mass., and St. Luke's Hospital, New Bedford, Mass., although they have no rule, make it a custom not to admit such cases. The House of Mercy Hospital in Pittsfield only admits these cases into their contagious wards, while the St. Elizabeth's Hospital, in Boston, only admits such cases into private rooms.

Thus, in nineteen hospitals scattered through seventeen cities and towns in Massachusetts, charity patients are practically debarred from entering a hospital during the acute stage of syphilis at a time when they are most dangerous to the public.

In six of these twenty-seven hospitals,—Framingham Hospital, Framingham, Mass., Holyoke City Hospital, Holyoke, Mass., Waltham Hospital, Waltham, Mass., Worcester City Hospital, Worcester, Mass., Massachusetts General Hospital, Boston, Mass., and the Peter Bent Brigham Hospital, Boston, Mass., there are no rules against the admission of such patients and in two others, Newton Hospital, Newton, Mass., and Memorial Hospital, Worcester, Mass., these cases are admitted with certain reasonable restrictions. These eight hospitals are scattered through six cities or towns in Massachusetts.

There might be some reason for this discrimination against the admission of acute syphilis to general hospitals if such a procedure were a source of danger to the other patients or the attendants in a hospital. For the trustees might feel that they should protect their charges rather than the general public, although this point of view might be open to just criticism. However, the admission of these cases to the open ward of a hospital has not been found to be a source of danger to the other inmates. Since its opening in 1913 the Peter Bent Brigham Hospital has admitted cases with acute syphilis to the open wards and simply used the same precautions that are used in cases of pneumonia and typhoid fever. There has been no case of infection within the hospital from these patients during this time. It seems, therefore, that it is a safe procedure so far as the patients and attendants of the hospital are concerned to admit acute syphilis to the open wards of a general hospital. Of course, the value towards the general public of isolating such cases during the stage when their lesions are active and numerous is obvious.

The physicians throughout this state should explain this situation to the trustees of the institutions in their communities so that these unnecessary and unwise rules discriminating against acute syphilis may be changed. In this way it will be possible for physicians to send these patients to hospitals for treatment until the more dangerous of their lesions have been cleared up and thus increase tremendously the protection of the public against syphilis.

A NOTE ON ADRENALINE THERAPY.

BY ALFRED WORCESTER, M.D., AND DWIGHT O'HARA, M.D., WALTHAM, MASSACHUSETTS.

This communication has two purposes. 1—To report a therapeutic use of adrenaline, which is new to us. 2—To speculate as to the mechanism of its action in this particular case.

H. W. L., male, 60 years old. The complete history of this case would involve pages of specialists' and laboratory reports, accounts of operations for the removal of focal infections, etc., and would not be pertinent to the discussion. It will suffice to state the clinical and anatomical diagnoses, and to recite the symptoms

at the time of beginning and during the use of adrenaline.

Clinical diagnoses:

Cirrhosis of the liver
Bronchiectasis
Asthmatic bronchitis, Walker
? Carcinoma of the stomach
Bronchopneumonia and left acute pleurisy, (terminal)

Anatomical diagnoses:*

Cirrhosis of the liver
Bronchiectasis
Fibrinous pleurisy, (left)
Adhesive pleurisy, (left and right)
Bronchopneumonia, (bilateral)
Slight ascites
Slight passive congestion of spleen
Arteriosclerosis, moderate

The use of adrenaline first began one year and five days previous to death. At this time the above clinical diagnoses were made except for the terminal pulmonary conditions. Because the illness had already existed for more than three years, the carcinoma diagnosis was in considerable doubt, and the morphine which had previously been used because of this diagnosis was being withdrawn. This withdrawal of morphine accentuated the symptoms of which the patient complained. These complaints were of asthma, and of the sensation of a "lump" in the epigastrium. The patient had been previously tested out for sensitivity to the various food and pollen proteins, and had been placed on a diet. But adherence to this diet gave no relief from the asthma and had the detrimental effect of producing loss of weight. Although the asthma was not especially severe, it was decided, nevertheless, to give some relief if possible with adrenaline.

Parke-Davis 1:1,000 solution was used, in a subcutaneous dose of one cc. The effect of the adrenaline on the asthma was satisfactory, but it was at once noticed by the patient that the "lump" in his stomach had disappeared. The use of adrenaline was therefore continued, in part to relieve the asthma, but mainly for the relief of epigastric distress. Between September 10, 1921, the day when adrenaline treatment was begun, and September 15, 1922, the day of death, the patient received over three liters of adrenaline solution, given subcutaneously at average intervals of four hours, day and night. Only once did it fail to relieve the "lump" in the epigastrium. This was one week before death when the patient was suffering with acute pleurisy. Subsequently it again afforded satisfactory relief, and its action was favorably commented on by the patient ten hours before his death.

The pathology of this epigastric distress has not been clear to us. It was more marked after eating, but had no relation to the character of the food ingested. We believe that it was due

* We are indebted to Dr. F. B. Mallory for a thorough necropsy report.

to one or both of the following conditions: First, gaseous distention of the stomach with cardiac spasm; but we were unable to percuss out the stomach with any degree of success because of the enlarged overlying liver. Second, an enlargement of the liver with resulting tension of its capsule. This hepatic enlargement had been increasingly evident for two years. It would be expected that both of these conditions would be aggravated by the changes known to occur in the physiology of digestion.

The pharmacology of adrenaline would support both of these hypotheses. First, the injection of adrenaline is followed by immediate cessation of the movements of the stomach and intestine which become relaxed to their full extent. This would explain the mechanism on the basis of increased intragastric pressure being the cause of his distress. Second, the action of adrenaline on the blood vessels, which would explain the mechanism on the basis of engorgement of the liver and consequent tension of its capsule, is as follows: The greatest constriction is seen in the vessels of the splanchnic area, the other vessels being involved in lesser degree. The pulmonary arterioles are so slightly constricted that there has been some difficulty in proving that they are involved in the general action.¹ This being so, adrenaline would mechanically decrease the amount of blood entering the portal circulation, and would increase the amount of blood passing into the lungs, thus facilitating portal drainage.

In addition to these mechanisms, the relief of whatever asthma may have been present was probably a contributing factor, by allowing more free diaphragmatic movement. In this connection it is noteworthy that on many occasions asthma was not a complication evident to either this patient or his attendants.

The patient was fortunate, as were also his physicians, in that he had a very good myocardium, for, although the action of adrenaline on the heart and coronary circulation is not constant, it is doubtful whether those hearts which are frequently the cause of gastric and hepatic distention could cope with the use of such large amounts of the drug over such a long period of time. However, it is felt that the theory here set forth is sufficiently sound to warrant its trial in cases of this class. We could not and would not have stopped its use in this case, regardless of myocardial conditions. For a year it enabled the patient to meet and enjoy his friends. A morphine addict was never more dependent on his dope, nor more anxious when his stock of it on hand was low, than was this man's dependence upon adrenaline to relieve his suffering.

Aside from the main purposes of this paper, there should perhaps be noted the effect of this large amount of adrenaline on the blood pressure. For two years before death the blood pressure was taken on an average of at least

once a week. Previous to the use of adrenaline it was never above 116, and averaged 110. After commencing the use of adrenaline it averaged 130, was never above 142, but dropped off slightly in the last few months, although the amount of the drug used was not restricted. The pulse pressure never showed significant variation, being usually about one-quarter of the systolic pressure.

SUMMARY.

The beneficial action of adrenaline on epigastric distress, presumably due to intragastric pressure, or liver engorgement, or both, has been observed in one case, repeatedly and over long periods of time.

This beneficial action was a happy therapeutic accident, which in the daily life of this particular patient was dramatic in its certainty and promptness.

On the theoretical basis set forth, this effect of adrenaline has a correct pharmacological foundation.

The use of adrenaline for cases of similar pathology is suggested.

REFERENCE.

- 1 A Textbook of Pharmacology and Therapeutics—Cushny, seventh edition, pp. 367-369, Lea & Febiger Co.

WHAT WE OWE TO PAST INVESTIGATORS FOR OUR PRESENT METHODS OF PREVENTION AND TREATMENT OF TUBERCULOSIS.*

BY EDWARD O. OTIS, M.D., BOSTON.

"Science moves but slowly slowly,
Creeping on from point to point,"
sings Tennyson, but it moves, nevertheless, and it is the patient studios investigator in the laboratory or clinic who with imagination and vision labors for this advance of science in whatever field he chooses to work. We call this diligent inquiry and study after facts or principles or after better ways of doing things, research, a very familiar name to medical men. Sometimes the investigator's object is to obtain some utilitarian result and sometimes his object is for the purpose of obtaining more truth and light upon the subject under investigation without any definite purpose of ulterior gain. And again the research is undertaken for humanitarian purposes for the benefit of others. Edison in his electrical laboratory and Good-year, who evolved the vulcanization of rubber, well illustrate the kind of research whose principal object is commercial or material gain—while on the other hand the physicist Tyndall, and the chemist Pasteur, illustrate those seekers of truth and increased knowledge in the domain in which their researches were undertaken without the thought of personal gain. It often happens, however, that research in pure science undertaken for the sole purpose of finding the truth leads all unexpectedly, it may be, to practical

*An address delivered at the Annual Meeting of the New Hampshire Tuberculosis Association at Nashua, October 26, 1922.

cal results. Thus Tyndall's investigations of floating matter in the air in relation to putrefaction, and Pasteur's experimental work on the causes of infection, led to our present-day knowledge of infectious diseases, namely, that they were caused by a micro-organism or bacteria from without the body, and not as was universally believed, before Pasteur's day, by spontaneous generation from within the body. And again the results of some investigator intent only on the discovery of truth or causes of certain phenomena may be taken up by another investigator and applied to useful and beneficent ends. Thus, Lister taking Pasteur's discovery of the cause of infection by a floating germ in the air applied it to the treatment of wounds and in surgical operations, and thus revolutionized surgery. When one undergoes at the present day some surgical operation and recovers so speedily and with so little pain, and without sepsis or blood poisoning, it is Lister, Pasteur and Tyndall he has to thank for this marvelous result; for before the days of these great scientists and investigators a surgical operation was almost always accompanied with blood poisoning and recovery was very uncertain. If it did occur, it was only after many weeks or months of suppuration and fever that this fortunate result was finally attained.

What about research work in tuberculosis and to what practical results have some of the investigations led us—investigations carried on in the silence of the laboratory or in the clinic or by the bedside by the student intent upon discovering greater knowledge of the disease and newer and better methods of combating it? How has the knowledge obtained in these investigations aided us in our work of prevention and treatment? Before considering other and some more recent investigations I must refer for a moment to two outstanding pieces of research work which have laid the foundation for all subsequent investigations and for all our knowledge in preventive measures. I refer to the discovery of the communicability of tuberculosis by Villemin, a French surgeon, in 1865, and of the discovery of the tubercle bacillus by Koch in 1882. Villemin inoculated susceptible animals, like rabbits, with tuberculous matter, and with sputum from tuberculous individuals, and produced in these animals tuberculosis in every case. When on the contrary he injected animals with pus from a common abscess no tuberculosis resulted. Others repeated these experiments of Villemin and thus verified his discovery. Thus one of the great enigmas in relation to tuberculosis was solved, and the practical result was the abandonment of the idea, still unfortunately held by not a few, that tuberculosis is inherited rather than communicated. In other words Villemin proved that tuberculosis was an infectious disease, and the practical result of this discovery is that when a parent, for example, in the household suffers from tuberculosis, we no longer say that the children

will inherit the disease, but if they develop it it is because they have become infected from the tuberculous parent, and hence our efforts to prevent this by protecting the children from the infectious sputum. Thus Villemin's discovery has saved the lives of thousands of children.

The next step was to discover how infection took place and Robert Koch, as we know, in 1882, revealed the secret which for centuries had lain hidden. Koch working in his laboratory, in a little German town, with the aid of the new science of bacteriology, and the improved microscope, conceived the idea that the infectious cause of tuberculosis was a specific bacterium or germ. With this idea in mind and with the new tools of bacteriology Koch began his investigations, and after long and patient labor, and many failures, he succeeded in demonstrating in tuberculous tissue and sputum the rod-like microscopic structure, which we know as the tubercle bacillus, in all tuberculous tissues and organs.

The next step was to determine whether this tubercle bacillus was the sole and invariable cause of tuberculosis, and for this investigation it was necessary to obtain a pure culture of the bacillus, that is a growth of these germs without any other germs intermixed. After infinite pains and patience he succeeded in doing this and then he injected these bacilli into all sorts of animals,—guinea-pigs, rabbits, cats, mice,—and not a single animal so injected escaping developing tuberculosis. At the same time he injected all kinds of diseased tissues other than tuberculous into guinea-pigs and rabbits and not a single one developed tuberculosis. Thus, finally, the truth regarding the real cause of tuberculosis and its method of transmission was known. By Villemin's and Koch's supreme achievement tuberculosis is known to the world as an infectious or communicable disease, the sole cause of which is the tubercle bacillus. But neither Villemin nor Koch could have carried on their researches without animal experimentation, and yet knowing what these discoveries have meant to the world, we still have to combat that incomprehensible prejudice against the use of animals for scientific purposes. How much more is the life of a human being worth than that of a guinea-pig or a dog, if by humanely sacrificing the life of the animal we can save the life of countless human beings.

Coming now to a piece of research work of more recent days I will call your attention to the so-called von Pirquet test,—so named from its discoverer, an Austrian physician, now living,—a discovery which has been called only second to that of the tubercle bacillus. Von Pirquet found that when he made a tiny scratch upon the skin of an individual, and put a drop of tuberculin upon it, which is a preparation made by extracting the toxins or poisons from the tubercle bacillus, similar to the way we extract the ingredients of tea leaves by boiling them, he

observed within twelve or twenty-four hours a red circular raised blotch upon the place where the scratch had been made in those individuals who are known to have tuberculosis; while in other well persons no such appearance was observed. Here then is a ready means, he said, to determine whether one is infected with tuberculosis or not, not necessarily having any active disease but indicating that the individual so reacting had a tuberculous infection which might never develop into active disease, or produce any illness. Von Pirquet applied this test especially to children of different ages, and found that with children of Vienna, for example, almost ninety-five per cent. reacted to the test,—that is, had a tuberculous infection. This test has been applied to children all over the world, and although the results differ in different localities, a surprisingly large number of children everywhere have been found to be infected. But let me again emphasize the fact, that infection does not mean active disease. At the Boston Dispensary, for example, where we have been applying this test to all our children, we found that at thirteen years of age fifty-three per cent. were infected. What practical result in the prevention of tuberculosis can we deduce from this discovery of von Pirquet's? It is this, that if so many children have somehow or other caught the germ, which is only an infection and not disease, then we should use every effort to safeguard the child's health so that the infection may not become active during childhood, and that the child may arrive at adult life so healthy that the infection may not become active disease at that period. Hence all our modern instrumentalities for protecting and maintaining the health of the child such as nutrition clinics, preventoriums, open air schools, play grounds, summer camps, and the children's health crusade. So we see that the clinical researches of von Pirquet have led to one of the principal efforts of our present tuberculosis workers,—the preservation and protection of the health of the child. Let me repeat again, that I may not be misunderstood, that the child who reacts to the von Pirquet test is usually not ill, but simply requires watching.

Again Dr. Theobald Smith, working in a laboratory connected with the Massachusetts State Board of Health, found that the tubercle bacillus obtained from tuberculous cattle or cows was of a different type and form from that found in tuberculous human beings. With this knowledge of the difference of the bovine bacillus from that of the human type it has been found that a very considerable number of young children who suffer especially from gland and bone tuberculosis, although of course they may have other forms of the disease, have the bacillus of the bovine form which was demonstrated by Dr. Smith, and furthermore that milk from tuberculous cows, especially with diseases of the udder, frequently contains this kind of bacillus. Hence from

this investigation of Dr. Smith comes the practical result that we give our babies and children certified milk, that is obtained from cows which have been tested and found free of disease, or else we Pasteurize the milk.

We have all heard of the Framingham Health Demonstration, a piece of research work or investigation undertaken to determine just how much tuberculosis existed in a typical town or small city with a mixed population and with varied industries. For this purpose \$100,000 was appropriated by the Metropolitan Life Insurance Company of New York, which was later added to it in order to complete the demonstration. A most thorough survey was made to detect all cases of real or suspected tuberculosis with the result that many more cases of the disease were unearthed than were known to exist. At the end of nearly two years of the demonstration, 200 cases were under observation as compared with 27 at the beginning, and during the first year 42 per cent. of the new reported cases were of an advanced type, while in the second year only 10 per cent. of the cases were advanced. The most important contribution made by the Demonstration was considered to be the medical consultation service as "the most promising means yet devised," says the report, "for securing a reasonably complete knowledge of the amount of tuberculosis existing in a given community." This demonstration has led to and proved the value of two practical results and methods which we are using today, namely, the survey so called, and the expert consultation service or clinic. The first step in a community is to find out how many cases of tuberculosis exist in that community—to make a survey—and one of the most effective means of doing this is the tuberculosis clinic conducted by an expert skilled in the detection of the disease. Thus the Framingham Health Demonstration, a piece of research work, has resulted in giving us this highly effective means of combating tuberculosis in any community, and of affording timely treatment to those suffering from the disease, and of protecting those exposed to it from becoming infected.

Some eighty or more years ago an obscure country practitioner, George Bodington by name, convinced himself that fresh air both by night and day was all-important in the treatment of tuberculosis, and acting on this conviction he established a sanatorium in which to carry out this idea, and he published an essay setting forth his principles of treatment. He met with so much opposition, however, that he was regarded as a lunatic, his patients were driven from his institution, which by the irony of fate he was compelled to turn into an asylum for the reception of the insane; for consumption was then and for many years afterwards regarded as caused or aggravated by exposure to the air, and the accepted treatment was to shut up the poor tuberculous individual, allowing him but little or no open air and shutting

out entirely the night air, which was considered harmful. He was smothered with bed clothes and doped with opium for his cough. There are those doubtless living today who remember this form of treatment, or maltreatment as we would now consider it. Attracted by the ideas of Bodington, the obscure country doctor in England, Brehmer, a German physician, in 1859 opened a sanatorium in Goerbersdorf in the Silesian Mountains, where, in spite of much ridicule and opposition, as was the experience of Bodington, he carried out the open-air treatment and eventually convinced many of his medical colleagues from his success that this method was far more successful than any other, and at his death there were some 300 sanatoria in Germany carrying out his plan of treatment. Thus we owe to the courage, clinical demonstration and perseverance under great opposition of Brehmer, the present universally accepted open-air treatment of tuberculosis. As someone has truly said, "the civilized world owes a great debt to this man Brehmer." His was a magnificent piece of research and a demonstration to prove the correctness of the idea of the open-air treatment of tuberculosis first suggested to him by the ill treated and unfortunate Bodington. So his pioneer labor has given us our present fresh-air method of treatment.

In passing I must not fail to speak of Trudeau's pioneer efforts to establish a sanatorium for the open-air treatment of tuberculosis in the Adirondacks after realizing how much open air life in this region had done for him. His venture, new in this country, began with one little cottage and resulted before his death in the extensive and famous Adirondack cottage sanatoria. Trudeau also worked out and clarified many of the problems of tuberculosis in the little laboratory he established at Saranac, now well known among investigators.

A patient of Brehmer's, and subsequently his assistant, was Dr. Dettweiler, whom I had the pleasure of meeting at his sanatorium in Falkenstein some years ago. Dettweiler, while accepting Brehmer's open air treatment, believed from his observation that not sufficient attention was given to rest, for Brehmer, believing that many tuberculous patients contracted the disease on account of a small heart, prescribed exercise in the form of hill climbing to strengthen this organ. Dettweiler, on the contrary, did not share this view of the cause of tuberculosis and believed that the diseased lung should so far as possible be kept at rest just as a diseased or injured joint is put in splints. He therefore kept his patients at rest in the open air, and his method was known as the open air rest cure. Dettweiler's conception of the extreme importance of rest is now universally accepted as correct. And again it is to his clinical demonstration of this value of rest that we owe this fundamental element in the modern treatment of tuberculosis.

But one must breathe even if the body is at

rest, and breathing means movement of the lungs. Forlanini, an Italian physician in Paravia, appreciating the extreme importance of rest for the diseased lung as well as for the body, not unlikely led to this consideration by Dettweiler's work, conceived the idea of applying a splint of air or gas to the lung by means of injecting into the pleural cavity in which the lung moves, this air or gas and thus compressing the sick lung and preventing its movement in respiration. This procedure he called "artificial pneumothorax." In 1892 he first tried this experiment upon a suitable case and such was his success that he continued this method and published his experience to the medical world at large. Others took up this method of Forlanini's and now it is an accepted plan in all sanatoria and with all specialists who treat tuberculosis. Of course there are only certain cases for which this artificial pneumothorax is applicable, but when it is, a life otherwise doomed may be saved, as has been demonstrated over and over again. Thus the pioneer clinical demonstration of this Italian physician in 1892 has given to us this very valuable additional means of saving life in tuberculosis.

Almost from time immemorial the value and efficacy of sunlight has been recognized. Herodotus and Hippocrates, the ancients, speak of the beneficial effect of the sun's rays. The Romans had solaria or sun rooms attached to their houses. It is a common experience that sunshine is conducive both to health of body and cheerfulness of spirits. "Where sunshine enters not, there the physician goes," says the proverb, and, says Shakespeare, "The glorious sun stays in his course and plays the alchemist." It is only quite recently, however, that a scientific application of this powerful and universal remedy called "heliotherapy" has been made in the treatment of tuberculosis, especially in surgical tuberculosis, such as diseased joints, glands and bones in children. Rollier in Leysin, an Alpine village in Switzerland, 4500 feet above sea level, established the first sanatorium for children to be treated by the sun's rays,—heliotherapy as it is now called,—in 1903. To Rollier we are indebted for first establishing upon a firm clinical basis this method of treatment, and he demonstrated that a large number of cases of surgical tuberculosis, especially of the joints, could be cured without operation by sunlight where previously an operation was considered the only alternative. Rollier's method of sunlight treatment is now employed in many sanatoria, especially for children, in this country, and its value is recognized as a very great addition to our means of treating tuberculosis, not only with children, but with adults, for example, in that very serious complication, tuberculosis of the larynx or throat. I well remember a visit to Rollier's sanatorium at Leysin a few years ago and my impression of the remarkable appearance of the little patients there. They

seemed to be in such vigorous health and so full of life, and the local disease of joint or bone in a majority of cases seemed well on the way towards cure. These children were so bronzed from exposure to the sun's rays that it was difficult to say to which race they belonged. Thus once more the pioneer demonstration of Rollier in heliotherapy has given us this valuable addition to our resources in the treatment of tuberculosis.

In the illustrations which I have given above of some of the researches and observations of pioneer workers we have seen how these investigators through their imagination, reflection, courage and perseverance, instituted and developed new methods of treating and dealing with tuberculosis which we possess and are using today in our campaign. It is well that we who are tuberculosis workers, as well as those patients who are recovering or have recovered through the modern treatment of the disease, should be reminded of the debt we owe to these pioneers and investigators who through patient and often discouraging work have brought us where we are today in the prevention and treatment of tuberculosis. Clinical and laboratory investigations with regard to tuberculosis are still going on in many quarters in this country and in Europe. What the future may give us as the result of these researches no one can say. What we are all looking for is some vaccine or serum which, like that for smallpox, may render us immune against tuberculosis as vaccination does against smallpox. I have referred to childhood infection in speaking of von Pirquet's test. Sometimes this infection protects only and never leads to active disease, but sometimes, alas, it overwhelms and kills the patient. It is nature's haphazard method of doing things. "When nature's uncertain method of tubercularization" (or infection), says Col. Bushnell, "so terribly wasteful of human life, shall be replaced by a thoroughly scientific method of artificial inoculation in which no life will need to be sacrificed, then tuberculosis will become as rare as a case of smallpox in a community of vaccinated individuals." For this devoutly desired end workers have labored long and diligently, and let us hope that finally they may solve the problem. When they do our work will be done, but until they do, let us labor and go forward in our beneficent work of prevention with courage and a brave heart, and let us not forget the patient, quiet investigator by the bedside or in the laboratory.

MEDICINE AND LAW.

BY HENRY L. SHATTUCK, BOSTON.

Chairman of the Committee on Ways and Means of the Massachusetts House of Representatives.

I AM very glad of the opportunity to address

this group meeting of the Medical Societies of the four western counties. While I have followed the professions of law and politics, my people have been physicians for some generations, and I feel a kinship with the men of your profession. It is therefore a special pleasure to be privileged to meet you and to join in your discussions.

You have asked me to speak on "Medicine and Law." I have selected a question of constitutional law now pending before the United States Supreme Court.

One of the most important problems now pressing for solution is that of the power of Congress to regulate the internal affairs of the States, and to tax the people of all the States for the purpose of dispensing "Federal Aid," so called, to such of the States as submit to the regulations imposed by Congress. I shall discuss the question with particular reference to the Act of Congress approved November 23, 1921, entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy and for other purposes," and commonly known as the Sheppard-Towner Act.

This act authorizes annual appropriations from the Federal treasury

"to be paid to the several states for the purpose of co-operating with them in promoting the welfare and hygiene of maternity and infancy. . . ."

The act authorizes an appropriation of \$180,000 for the fiscal year which ended June 30, 1922, to be divided equally among the States, and authorizes appropriations of \$240,000 for each subsequent year for five years, also to be divided equally among the States, so that if every State accepted the act each would get \$10,000 in the first year and \$5,000 thereafter. The act also authorizes an additional appropriation of \$1,000,000 for the fiscal year which ended June 30, 1922. The Children's Bureau is authorized to expend 5 per cent. of this and of any other additional appropriations which may be made. Of the balance, \$5,000 is specifically apportioned to each State, and the residue is apportioned to each State according to population, provided that no payment from any additional appropriations shall be made to any State which does not appropriate an equal amount from its own funds. It is evident that the act contemplates additional appropriations each year of a million, at the very least.

The Children's Bureau of the Department of Labor is charged with the administration of the act, and a new board is created, to be known as the "Board of Maternity and Infant Hygiene." This board consists of the Chief of the Children's Bureau, the Surgeon-General of the Public Health Service, and the Commissioner of Education. It is to be particularly noted that the act requires that each State, as a condition precedent to obtaining the Federal allotment, must submit its plans to the Children's Bureau, such plans to be subject to the approval of this

board. Each state agency shall make such reports to the Children's Bureau as the latter shall prescribe, and the Bureau, with the approval, and at the request of a majority of the board, may withhold further payments from any State whenever it shall be determined that such State is not properly expending the money paid to it.

It is also to be particularly noted that after making the above-mentioned appropriations for distribution among the several States, a subsequent section of the act denies to any State the benefit of these appropriations unless it accepts the provisions of the act and designates an agency to co-operate with the Children's Bureau.

The question of accepting this act was before our Legislature at its last session. The Legislature declined to accept it, and requested the Attorney-General to give an opinion as to its constitutionality. He advised the Legislature that the act was not within the constitutional powers of the Federal Government. Thereupon, the Legislature requested the Attorney-General to contest the constitutionality of the act, and proceedings for this purpose have been begun in the United States Supreme Court.

In considering the constitutional phase of the question, it should be remembered that each State is a sovereign body, with sovereign powers, except so far as it has delegated these powers to the Federal Government. The very limited powers of the Federal Government are set forth in Article I, section 8, of the Constitution. Briefly stated, this article grants to Congress the power to borrow money; to regulate foreign and interstate commerce; to coin money; to establish post offices and post roads; to provide for patents, copyrights, a bankruptcy law, and rules for naturalization; to declare war and raise and support armies and maintain a navy; to exercise limited authority over the militia in the several States; to create a government district not exceeding ten miles square to be used for the seat of government; and

"to lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defence and general welfare of the United States;"

and to make all laws necessary or proper for carrying out the foregoing powers and all other powers vested by the Constitution in the Government of the United States. All powers not granted to the United States by the Constitution are reserved by the Tenth Amendment to the States or to the people. This amendment had been suggested while the ratification of the Constitution was under discussion, and was introduced at the first session of the First Congress and adopted in 1791. The purpose of the amendment was to emphasize the limited powers of the United States and to safeguard the powers and prerogatives of the States.

No specific power can be found to support the Sheppard-Towner act, or other similar legislation such as the pending Towner-Sterling educational bill, which calls for an expenditure of

\$100,000,000 at the start. If constitutional, the Sheppard-Towner act must be supported solely on the power to

"lay and collect taxes, . . . to pay the debts and provide for the common defence and general welfare of the United States."

It has been contended that the act may be supported under the power contained in the clause I have just quoted. I believe this view is mistaken. This clause gives power to lay and collect taxes for the common defence and general welfare. The words "general welfare" are merely descriptive of the taxing power. They are not in themselves a grant of power. No power is granted Congress to legislate upon or to set up administrative machinery for regulation or control of any subject it deems to be for the general welfare. "General welfare" is a broad term; it covers every field of activity. Should the construction relied upon by the advocates of such legislation be adopted, Congress would wield the supreme power. The very existence of the States would be placed in jeopardy. Local self-government would be at an end. Bureaucracy would be in the saddle. Every activity of our lives would be regulated from Washington. And we should soon be in the condition of France, where every detail of government is regulated from Paris, and which in treatises on government is cited as a horrible example of bureaucracy gone mad. In fact, by reason of the immense size of our country, and the great diversity in climate, needs, and conditions, the evils of bureaucracy would be far greater.

But this is not all. Such legislation is also discriminatory and unfair, particularly so in the case of Massachusetts. All the revenues of the Federal Government are derived from the people of the several States. The people of Massachusetts in 1921 paid to the Federal Government in internal revenue taxes alone the huge sum of \$259,865,213.85—over a quarter of a billion dollars in one year,—a sum over six times larger than the entire expenditures of the State in 1921 for the operation of the State Government and all its institutions and activities. Massachusetts pays the Federal Government far more in proportion to her population than the great majority of the other States. For example, Alabama, with a population nearly two-thirds that of Massachusetts, in 1921 paid to the Federal Government in internal revenue taxes only \$18,429,531.41, or about 7 per cent. of the amount paid by Massachusetts; and Mississippi, with a population nearly half that of Massachusetts, turned over only \$8,996,571.95, or less than 4 per cent. of the amount paid by Massachusetts. Yet these States, by such legislation as the Sheppard-Towner act, will receive grants from the Federal treasury in proportion to population.

Still more unfair is the apportionment of a fixed sum to each State, irrespective both of contribution and of population. For example,

out of the first \$480,000 of the Sheppard-Towner appropriation, Nevada, with a population of 77,000, gets the same amount as Massachusetts, with a population of 3,800,000, and as New York, with a population of 10,500,000.

By legislation of this kind, the Federal Government constitutes itself a collection agency, to collect from the States in one proportion, and redistribute to the States—or rather, to those States which submit to Federal interference in their internal affairs—in very different proportions. The States which refuse to submit get nothing. Could any more insidious scheme be devised by which to bribe those States which benefit from these discriminatory apportionments to bow to bureaucratic power?

Let it not be thought that by declining to accept the Sheppard-Towner act Massachusetts disapproves of promoting the welfare and hygiene of maternity and infancy. On the contrary, she approves of it, and has for some years granted appropriations to the Division of Hygiene of her Department of Health for this purpose. At the last session of the Legislature this appropriation was materially increased. I shall not trespass on your time by any detailed description of what the State is doing. Suffice it to say that the Department of Health investigates the causes of maternal and infant mortality, employs public health nurses to assist in furthering the child hygiene programmes in the various cities and towns, and conducts an informational service for mothers and expectant mothers. In all this work, the department has followed out its policy of placing the ultimate responsibility for action upon the cities and towns rather than upon the State itself.

While defending her sovereignty against the onrush of bureaucracy, Massachusetts has not neglected her duty to promote the health and welfare of her people. She has kept the faith.

TORSION OF THE GREATER OMENTUM*

BY MONROE ANDERSON McIVER, M.D., BOSTON.

Torsion of the greater omentum occurs not infrequently. Since Oberst¹ described the first case in 1882, about 147 cases have been reported, although the total number of recognized cases is undoubtedly much larger.

The condition is usually associated with hernia. Corner and Pinches² in their classical article divide the cases into three clinical groups: abdominal; hernial; and hernial and abdominal. In the first group there is no hernia present and the torsion is purely abdominal. Of the 53 cases analyzed in their report, six fall into this group. Their remaining 47 cases fall either into the hernial group, where the torsion is solely within the hernial sac; or into the third group, where the torsion is not limited to the sac, but extends into the abdominal cavity.

* From the Massachusetts General Hospital; service of Dr. Franklin G. Balch.

The mechanism by which the torsion is brought about is not always clear. The rôle played by omental adhesions to various viscera is stressed by Fuller³ and is undoubtedly an important factor in certain cases.

Because of the closeness with which this condition may simulate several of the common inflammatory processes occurring within the abdomen, the number of correct diagnoses will probably never be very high. In those cases associated with hernia, at least, an inferential diagnosis should be made in a much higher percentage of cases. The symptoms and physical signs encountered in the abdominal type of torsion of the omentum are illustrated very well by the case presented in this report.

W. H., Hosp. No. 248912.

A young man, 28 years of age, admitted to the emergency ward on April 3, 1922, with a diagnosis of acute appendicitis.

Family History, negative.

Past History: Except for measles when a child, the patient has always been well. He has had no symptoms referable to the cardio-respiratory, gastro-intestinal, or genito-urinary systems. Has had no operations or accidents.

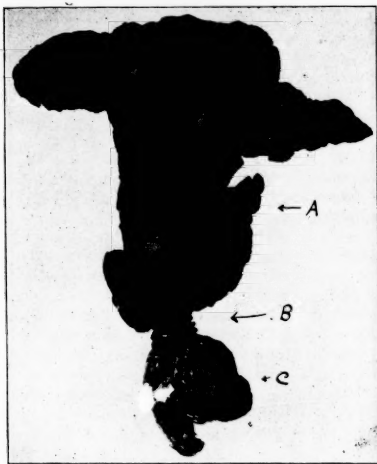
Present Illness: Four days ago the patient noticed a sense of fullness and discomfort in the epigastrium. This was somewhat relieved by taking soda bicarbonate. The next day these symptoms returned and in addition he began to suffer from a pain localized just to the right of the umbilicus. This pain has been at times severe enough to "double him up" when he walks; it is sharp and knife-like in character, and does not radiate. He has had no nausea or vomiting. The pain has not been sufficiently severe to cause him to remain in bed until this morning. His bowels have moved each day with cathartics.

Physical Examination: A well-developed young man, lying quietly in bed. He does not appear to be in acute pain. The general physical examination is negative except for the abdomen, which shows rather marked distention and moves very little with respiration. There is some muscle spasm present over the whole abdomen, but it is very much more marked over the right side. There is an area of acute tenderness in the lower portion of the right upper quadrant. This area of tenderness does not descend on forced respiration. No masses can be felt, but palpation is somewhat unsatisfactory because of the distention and tenderness. Temperature 102°. Pulse 128. Respirations 28. Leucocyte count 13,800. The urine examination is negative.

Diagnosis: A diagnosis of acute appendicitis was made. The history was perfectly consistent with this diagnosis. The location of the tenderness was well above McBurney's point; but this could be explained on the basis of an inflamed appendix lying with its tip directed

towards the liver. The area of tenderness seemed to be too low to be consistent with an acute cholecystitis, although this diagnosis could not be absolutely ruled out.

Operation: The abdomen was opened through a right rectus incision, so placed that it could be extended upward or downward as the findings warranted. On opening the peritoneum, an area of necrotic omentum could be



Resected portion of omentum.—A. Gangrenous portion of the omentum. B. Twist interrupting the blood supply. C. Normal omentum at the point of resection.

seen lying just to the right of the incision. This was walled off with sponges and the omentum delivered without difficulty. The gangrenous portion was about 7 by 10 cm. in extent. At the base a very definite twist could be seen that had evidently cut off the blood supply. The appearance of the gangrenous portion and of the twist that caused the strangulation will be seen in the accompanying photograph. The remaining portion of the omentum was perfectly normal. The parietal peritoneum which was in contact with the omentum appeared acutely inflamed and had a bright red stippled appearance, but there were no adhesions connecting the two structures. The appendix, gall-bladder and stomach were perfectly normal. The gangrenous portion of the omentum was resected, and the wound was closed in layers.

Post-operative History: The convalescence was uneventful except for rather persistent abdominal distention during the first few days following operation. The patient was discharged on the thirteenth day. When he reported for observation two months later, he stated that he had returned to work and was feeling perfectly well; his physical examination showed nothing abnormal.

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1. M. Oberst. *Centralblatt f. Chir.*, 441, 1882.
2. E. M. Corner and H. I. Pinches. *Am. Jour. of Med. Sc.*, N. S., Vol. 130, 314, 1905.
3. W. Fuller. *Surg., Gynec. and Obst.*, Vol. 7, 231, 1908.

THE PREVENTORIUM AND ITS RELATION TO TUBERCULOSIS IN CHILDHOOD.*

BY RANDALL CLIFFORD, M.D., BOSTON.

In the progress of medicine today more and more stress is being laid upon the importance of the prevention rather than the cure of disease. The control of smallpox, the eradication of yellow fever in the Canal Zone, the control of malaria in the tropics,—all these have been accomplished not by treatment of the disease but by methods of prevention. We have not as yet a specific cure for tuberculosis; prevention is the most effective method of dealing with this problem.

Ever since Koch discovered the tubercle bacillus in 1882, tuberculosis has been recognized as an infectious disease; and at the present time it is rightly called one of the commonest diseases of childhood. We all know that those children who are continually being exposed by living at home in intimate contact with an open case of tuberculosis are in constant peril of infection. In a certain number of these children active tuberculosis develops at an early age; others seem to develop a marked degree of immunity; but there is another very large group of children who develop only a partial immunity. In these children the disease remains latent, only to spring forth as active tuberculosis in later life. Dr. H. D. Chadwick of the Westfield Sanatorium says that incipient pulmonary tuberculosis in the adult is an extremely rare condition; that the so-called "early cases" in adults are in reality but reactivations of childhood disease.

We have not as yet sufficient evidence in large groups of cases to determine the many factors which cause a latent tuberculous infection in a given child to become active disease in later years. We do know, however, that the best results in the cure of tuberculosis will be obtained when the disease is detected in its earliest stages; and this leads us back from the adult to the child,—as Pasteur said, "in order to save a race that is threatened by an infectious disease, the best plan is to save the cocoon." Heretofore most of the work among children has been done in connection with those in whom the disease was well established. But if we wish to diminish the number of patients who fill our sanatoria each year, we must concentrate our efforts in treating those children who, though not actively diseased, yet have a tuberculous infection and are destined to be the consumptives of the future.

*Read before the Institute of Physicians, Boston, October 6, 1922.

Two things are necessary in doing this. First, we must pay more attention to the early diagnosis of tuberculosis in childhood; secondly, we must protect those children who are infected from developing the disease.

The early diagnosis of tuberculosis in childhood is by no means an easy task, as the infection frequently remains latent, giving rise to few clinical signs. When a child seems debilitated or has indefinite symptoms which can be attributed to no other cause, tuberculosis should always be suspected. Dr. John B. Hawes, 2nd, lays particular emphasis on the following points in the diagnosis of bronchial gland tuberculosis in children: a positive skin tuberculin test; a definite history of exposure from either human or bovine sources; constitutional signs and symptoms, particularly loss of weight or failure to gain weight, together with undue fatigue, fever, or rapid pulse; and the evidence of enlarged bronchial glands, as shown by x-ray examination.

The history of exposure is one of the most important points which should be considered. We know that the number of children who have a tuberculous infection is greatest in homes where there is someone with open tuberculosis. This is particularly true in the homes of the tuberculous poor.

The problem of prevention is being dealt with in various ways. In France the Grancher Society is founded upon the theory that the most effective method of controlling tuberculosis is to prevent its contagion by placing the children of tuberculous parents, before they become infected, in healthy families throughout the provinces of France. Splendid results have been obtained in this way in preventing these children from becoming infected.

Until lately little had been done in this country for the child in whom a tuberculous infection existed but in whom no clinical disease could be found. Open-air classes and day camps are excellent for building up the undernourished children who come from healthy homes; but it is impossible to safeguard those who come from homes in which tuberculosis exists, unless we eliminate the constant peril of infection by removing the child from the home for a sufficient length of time to build up his resistance. A. F. Hess pointed out that in 1914 in all of the institutions in New York City maintained for caring for unfortunate and needy children, there was no institution prepared to accept these cases. The hospitals could not admit them because they were not sick, the orphan asylums because their parents were living, and the infant asylums because in many instances they were not destitute. This crying need is being met today by the preventorium.

A preventorium is not, as some suppose, a hospital or sanatorium for taking care of children who have tuberculosis. As the name implies, it is a place not of cure but of prevention. An ex-

cellent example is the preventorium at Farmingdale, New Jersey.

This preventorium was organized for poorly nourished children, exposed to tuberculous infection in their homes, having already contracted tuberculosis as shown by the tuberculin reaction, but having as yet no active disease. The preventorium is composed of a reception pavilion, where the children are quarantined for three weeks on arrival to prevent infection of the large group; four open-air shacks, a small infirmary, school buildings, administration buildings, a dining-room, and 170 acres of land. There are licensed teachers, and the children have a two-hour school period each day. It is surprising that only ten hours of school a week are sufficient to keep the children up to school grade; their improved health is the stimulant to their mentality which makes this possible.

The Prendergast Preventorium was recently started at Mattapan under the auspices of the Boston Tuberculosis Association. It is situated in the woods, with ample room for the children to play, and within easy reach of the city. The children were selected from hospital clinics, and copies of their clinical records were sent with them. Only those were admitted who showed evidence of a tuberculous infection, or in whose family tuberculosis existed, and who, as a result of their environment, had little chance of escaping the disease. Before admission all sources of infection, such as tonsils and adenoids, were eliminated. All of these children were underweight, and it is gratifying to see what rest, good food, fresh air and sunshine have done for them. Coming from homes in the midst of the city they seem to have been benefited in the most remarkable manner.

No one yet knows how long a period it takes for a child showing evidence of a tuberculous infection to acquire sufficient immunity to resist reinfection. A child may in a short time appear physically fit and return to normal weight, but until the child has remained in this healthy condition for at least a year, or until the danger from infection at home has been removed, we should not feel that the child had been given his chance.

Gradually we are awakening to the great value of the preventorium in the prevention of tuberculosis, and splendid work is now being done at Farmingdale, Toronto, Lakeside, and elsewhere. By building up the child's resistance by proper nourishment, rest, and good hygiene, at this most critical time of life, the preventorium offers one of the most effective means of enabling the child to resist infection. The work of the preventorium should not cease, however, after the child's discharge. Each child should be closely followed, and should have repeated physical examinations, Von Pirquet tests and x-ray examinations made for many years. In this way only may a large group of cases be followed from childhood to adult life, and the true value of the work of the preventorium proven.

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Book Reviews.

The Thyroid Gland. By GEORGE W. CRILE AND ASSOCIATES. Published by W. B. Saunders Co. 1922.

This is the first of a series of clinical volumes to be gotten out by the Staff of the Lakeside Hospital in Cleveland. In the midst of a great goitre belt it is very fitting that these authors should place the results of their vast experience before the profession.

The volume deals with all diseases of the thyroid. Definite conclusions are drawn from observations in their clinic. More attention is given the toxic forms of goiter, which are treated surgically with a very low mortality. A definite régime is followed in all cases, thereby eliminating most chances of error in judgment and always keeping the patient within the bounds of safety.

X-ray treatment has been tried on a few cases and abandoned on account of the uncertainty of results obtained.

The treatment of endemic adolescent adenoma is standardized and suggestions made for its elimination. Many of the routine measures advocated cannot be practically carried out in communities where the disease is less prevalent, but this work will be a great help to all clinicians dealing with disorders of the thyroid gland.

Kirke's Handbook of Physiology. Revised and Rewritten by CHARLES WILSON GREENE, A.M., Ph.D., Professor of Physiology and Pharmacology, University of Missouri. 1922. Tenth American Revision. New York. William Wood and Company. 820 pages, with 524 illustrations, including many in colors. Price \$5.00

The tenth American edition of Kirke's Handbook has been revised and rewritten by Pro-

fessor Charles W. Greene. This is a handbook on Physiology, which undertakes to briefly express the modern conceptions of Physiology, and to suggest experimental procedures for laboratory studies.

Not only does it contain Physiology, but also much Anatomy as well as Physiological Chemistry. The scope is therefore very great and indeed the attempt is made to cover too much ground. Much scientific knowledge which is difficult to express simply is included, and as a result the book will probably be not simple enough for the beginner, and at the same time will hardly be thorough enough for the more advanced student of medicine. The ideal text book of this type should either stick to essential conceptions which are well established, or should go into the more uncertain physiological problems with greater thoroughness. The middle course which this book attempts seems to be rather unsatisfactory.

This criticism holds true for the medical student; on the contrary, for the college student of physiology this book is probably a very satisfactory text.

Physiology and Biochemistry in Modern Medicine. By J. J. R. MACLEOD, M.B., Professor of Physiology in the University of Toronto, Toronto, Canada; formerly Professor of Physiology in the Western Reserve University, Cleveland, Ohio. Assisted by ROY G. PEARCE, A. C. REDFIELD, and N. B. TAYLOR, and by others. 1922. Fourth edition. St. Louis: C. V. Mosby Company. 992 pages, with 243 illustrations, including nine plates in colors. Price, \$11.00.

It is a great pleasure to read the successive editions of Professor Macleod's excellent book. This book bridges the gap between laboratory and experimental work in the medical sciences, and the point of view of the clinician.

In it will be found all of the interesting scientific facts which may, in one way or another, prove of interest in the clinic. It is also an excellent physiological text book.

Extremely well written, entertaining and full of data, even of the observations of the past year, it is the type of book all medical students should consult frequently. This holds true equally for the clinician who is interested in the physiology of his patient and the reasons why various phenomena occur.

There is only one thing to criticize about this volume: it is so well gotten up, with so many more illustrations than are necessary, that its price puts it beyond the reach of some. It would be well if it were possible to get out an edition which would be more moderate in cost, but probably no less valuable as a reference book.

This book ranks very high among our best modern text books.

Early British Botanists. By R. T. GUNTHER, M.A., F.L.S. 417 pages. Oxford: University Press, 1922.

An instructive study of botanists of the Elizabethan and Jacobean age, compiled principally from the papers of John Goodyer, from whom, White says, "every writer of the period owned help in one way or another."

It was a period when the study, it seems, was practically monopolized by physician, apothecary and herbalist, and when the botanics were little more than works on materia medica.

Goodyer's life (1592-1664) was spent in southeast Hampshire, a region whose attractions are widely known through Gilbert White's *Natural History of Selborne*. His botanical friends included the elder Tradescant, Parkinson, Coys, Franqueville and many others, some of whose names are still familiar, while others, equally deserving of fame, have passed into comparative obscurity.

Gunther's work contains notes of these contemporaries of Goodyer, lists of plants from their gardens, his own descriptions of plants, one hundred and fifty of which are still extant; a history of his life, an account of the extensive botanical library bequeathed by him to Magdalen College, together with miscellaneous papers.

The binding and printing, the quality of the paper and the excellence of the illustrations add materially to the value of the book.

Lectures on Dietetics. By MAX EINHORN. Published by W. B. Saunders Co.: Philadelphia and London, 1922. 244 pages. Price \$2.25.

This small book, written in a non-technical language, which makes it available for students, nurses and others, is presented again in an enlarged second edition. It contains numerous useful tabulations and outlines of accepted procedures, including the use of the duodenal tube.

Its greatest virtue, however, is that it is written by a recognized expert who devotes his weight of authority to emphasizing the importance of simple procedures which can be carried out in any home—common sense measures rather than complicated laboratory methods.

Furthermore, throughout the book, the main emphasis is placed upon the necessity for realizing that just as ill health is a deviation from the normal, so all special dietaries must be considered as temporary, mere stop-gaps, all of which may be considered valuable just in proportion to the speed with which they make it possible for the average patient to resume what may be for him his closest approximation to an average normal diet.

The Propaganda for Reform in Proprietary Medicines, Vol. 2, 1922. Containing Reports of the Council on Pharmacy and Chemistry and contributions from the A. M. A. Chemical Laboratory and from *The Journal of the*

American Medical Association. Cloth. Price, \$2.00. Pp. 603 with illustrations. Chicago: American Medical Association, 1922.

The present book is the second volume of the "Propaganda for Reform in Proprietary Medicines." The first volume ran through nine editions. The ninth edition contained (1) the most important reports of the Council on Pharmacy and Chemistry, (2) the reports of the A. M. A. Chemical Laboratory, and (3) those articles from *The Journal of the American Medical Association* which deal with the problems of proprietaryship in medicine and the furtherance of rational drug therapy. All of this material covered a period prior to 1917.

The present (second) volume contains similar material covering the period from January, 1917, to April, 1922, inclusive. Like Volume 1, this volume is divided into four parts:

Reports of the Council on Pharmacy and Chemistry.—This section presents the principles and rules which govern the Council in the examination of medicaments, contains articles and reports bearing on the work of the Council as well as the most important reports of the Council from 1917 to April, 1922, inclusive.

Reports of the A. M. A. Chemical Laboratory.—This, besides presenting the aims and objects of the Association's Chemical Laboratory, also outlines some of the Laboratory's work which is of special interest to physicians.

Contributions from The Journal: Proprietary Products.—This contains articles which have appeared in *The Journal A. M. A.* on proprietary preparations and their methods of exploitation.

Contributions from The Journal: Miscellany.—In this section are articles dealing with matters of interest to the medical profession but not coming strictly under the classification of proprietary medicinal preparations.

A comparison of the material that has appeared in Volume 1 of the Propaganda for Reform with that which appears in this volume will reveal the changing conditions in the proprietary medicine field. Many of the reports in the first volume brought out the fact that medicinal preparations were at that time foisted on the profession with false claims of composition; reports of this character are less conspicuous in the present volume. Many of the reports in Volume 2 deal with unwarranted therapeutic claims, especially those advanced for animal organ preparations, serums, vaccines, preparations for intravenous medication, etc. The present volume will also be found of interest in its portrayal of the changed conditions in proprietary medicines brought about by the World War.

The index in this new volume is, in effect, a bibliography, including references not only to articles in the book but also (a) to articles which appeared in Volume 1; (b) to articles on the same general subject in *The Journal of the American Medical Association*, and (c) to articles appearing in the annual reports of the Council on Pharmacy and Chemistry and of the A. M. A. Chemical Laboratory, but not printed in either volume of the *Propaganda for Reform in Proprietary Medicines*.

The book should be in every physician's library and, more than that, should be within reach for convenient reference.

Physical Exercises for Invalids and Convalescents. By EDWARD H. OCHSNER, B.S., M.D., F.A.C.S. C. V. Mosby Co., St. Louis: 1922. 56 pages. Price, \$0.75.

Many invalids and convalescents express a healthy desire to know what exercises they may safely take in order to promote recovery of strength. Often the physician may be in some doubt concerning just what exercises he may safely insist upon having his more sluggish patients carry out.

A small illustrated manual of convenient size adapted to fulfill the above requirements should be of value, and it would seem that the second edition of this small illustrated series of forty-two exercises, published originally by the author in the interests of his own patients, should prove useful to other patients in the practice of other physicians.

Injury, Recovery, and Death, in Relation to Conductivity and Permeability. OSTERHOUT (W. J. V.). In "*Monographs on Experimental Biology*". Philadelphia and London, 1922.

The physician thinks of injury, recovery and death in relation to the complex and elaborate tissues of an intricate organism. The possibility of securing insight into the changes accompanying these processes by means of electrical and physico-chemical methods seems strange and mysterious. Professor Osterhout has done so by use of the relatively simple structures of plants and lower animals. The result is an interesting account of experiments on the alterations of electrical conductivity and the altered permeability of cells which have undergone injury, or are recovering from injury, or are in the process of dying. The effects of anesthesia are also considered. Persons interested in the fundamental cell changes which are associated with accidents, repair, or gradual destruction in living substance, will find a record of highly suggestive and stimulating facts in Professor Osterhout's volume.

Gonorrhea and Impotency. Modern Treatment. By EDWIN D. HIRSCH, S.B., M.D. The Solar Press, Chicago. 172 pages.

This book has a number of fundamental defects. It is superficial in its pathology, not infrequently inexact in the description of symptoms, and is full of errors of spelling and of grammar. Singular subjects often are followed by plural verbs, and vice versa. An amusing error occurs on page 111, where, in speaking of gonorrhea on the female, the author says "Nothing compares with ultra-violet radiation in the treatment of gonorrhea for it relieves the infection by killing the *host*" (italics ours).

The great fault which we would find with the book lies in the extremely uncritical attitude of mind of the writer. His chief reason for putting out the book would seem to be the exposition of the methods of applying physiotherapy—ultra violet light, radiant heat and diathermy—in urology, yet although he describes the application of these measures in the various conditions encountered, he also advises the use of the regular methods which are generally employed. There is nothing to indicate that he gets any better results from the use of both these methods than others get from the use of the latter method alone. We believe there may be certain benefits to be derived from physiotherapy in such cases, but we feel that a writer who presents a new method should give more direct evidence of its value than Hirsch has done. His book leaves the impression that the writer is carried away by his enthusiasm for therapeutic measures, of the value and *modus operandi* of which he is really absolutely ignorant.

An Introduction to the Practice of Preventative Medicine. By J. G. FITZGERALD, M.D., F.R.S.C., Professor of Hygiene and Preventative Medicine, and Director of Connaught Antitoxin Laboratories, University of Toronto. Assisted by Peter Gillespie, M.Sc., C.E., M.E.I.C., Professor of Applied Mechanics, University of Toronto, and H. M. Lancaster, B.A.Sc., Director of Division of Laboratories, Provincial Board of Health, Ontario, and Demonstrator in Sanitary Chemistry, Department of Hygiene and Preventative Medicine, University of Toronto; and Chapters by Andrew Hunter, M.D., F.R.C.S.; J. G. Gunningham, B.A., M.B., D.P., and R. M. Hutton, with appendix articles by various contributors. C. V. Mosby Co., St. Louis: 1922. 826 pages.

This book might have just as appropriately been called a practical manual for persons engaged in public health work in a public or private capacity. The book is designed with special reference to the practical needs of the practising physician, but a medical education is not necessary to make the book understandable. It emphasizes to a noteworthy degree public health essentials as, for example, when the author says, "The time has arrived, when in a much larger measure, physicians in general practice must become integral factors in the public health program", or when he says "it is most impor-

tant to remember that *the physician makes the diagnosis, not the laboratory*" (italics are the author's), or that a patient "even suspected of suffering from certain acute diseases *"should be isolated at once"*, or, as when considering the earliest symptoms of measles and measures for the protection of others, he says "the damage has been done if the physician waits for the appearance of Koplik's spots" Th relative importance to public health of acute communicable diseases is, however, not over-emphasized. The fundamentals of public health—public water, milk and food supplies, and "community cleanliness" have received due recognition both with respect to space and manner of presentation. Among the other subjects treated are ventilation, tuberculosis, infant mortality, school hygiene, industrial hygiene, public health nursing, health centers, and public health organization, administration and legislation. Chapters have been supplied by the author's collaborators and by other contributors on various subjects. A captious critic may find in the book instances where positive assertions are made regarding matters which are open to question, at least, but it cannot be said that the practical value of the book is impaired by reason of a dogmatic attitude in any matter of real importance.

A Clinical Treatise on Diabetes Mellitus. By MARCEL LABBÉ, translated, revised and edited by C. G. Cumston, with four new chapters by the author and three by the editor not included in French edition. Wm. Wood & Co., New York: 1922. 382 pages. Price, \$5.00.

This handbook is stimulating in many respects, though one can hardly agree with the editor that it is "from the viewpoint of actual practice by far the best exposé of the subject as yet published." Naunyn's book, though dating back to 1906, and Joslin's, dated 1917, are to the reviewer the real rivals for the above title; and if monographs on the more theoretical aspects be desired, the books to get are Von Noorden 1917, and Allen, Stillman & Fitz 1919.

At the same time there are sundry valuable considerations in the French edition of 1920, a reprint of papers printed in journals from 1908 on. The present book properly enough includes subsequent articles by Labbé (Chaps. III, VIII, XX, XXV; Glycemia, Epilepsy, Goitre, and Fast Cures); also three chapters by Dr. Cumston lauding Maillard and Lanzenberg's coefficients, and discussing a colloidal nitrogen ratio, and the differences between "ureic nitrogen" and residual nitrogen; and finally an index which, as always, enhances the value of the book.

The chapters most worth reading are: II, XXI, XXIV, Contrasting diabetes, without and with, denutrition; nitrogen allowance; III Glycemia. The author evaluates blood sugar curves by measuring on co-ordinate paper the "area of a triangle represented by the initial, maximum, and final percentages of the glycemia.

... normal area 0.45. . . diabetic 3 or more." This suggestion is new to the reviewer, and seems of possible practical use. The author believes that dieting should be pushed till the blood sugar be normal. This rational view but radical practice has been urged by Allen. VI Palmoplantar xanthochromia. X Edema. XXVI Surgery. XXXIV "Two cases of coma cured"; one of these, Mrs. L., was in literal coma, *i.e.*, unconscious, and therefore her recovery renders her more significant than cases occasionally reported as coma, but never beyond being roused.

Generalizations not new but worth quoting are the following: The necessity of not only prescribing the quality, but also the quantity of food that should be taken daily (p. 216). "28-30 calories per kilogramme of body weight is the one which appears to me the most suitable in the majority of cases" (p. 222). "One may be diabetic and die from uremic coma, and this is what actually happens to certain corpulent diabetics who are more apt to be threatened by the bad condition of their kidneys than by their diabetes" (p. 317).

Minor points which may be questioned are the omission of references in the translation, and the following novelties of thought or phrase: "True pancreatic . . . diabetes . . . a rarity" (p. 2) . . . "At admission this patient was at first put on . . . 480 g. CH" (p. 11) . . . "On the contrary, polydipsia precedes and . . . polyuria succeeds it" (p. 20) . . . "During fast" (for fasting) (61) . . . "area will be 3 cubic grammes" (p. 63) . . . "glucose limit" (for threshold) (p. 64) . . . significative (p. 321) . . . alkalines (p. 332).

The mention of workers outside the author's own clinic is an ingratiating contrast to the perpetual claims of priority put forward by so many continental writers.

The Laws of Sex. By EDITH HOUGHTON HOOKER. pp. 373. Boston: Richard G. Badger. Price, \$5.

In the book with the above title, Dr. Hooker dissembles, sincerely and conscientiously, the fundamental questions arising from our sexual life. Everything is all wrong now, she believes; this is a man-made world, run for the benefit of man, and poorly run at that. She builds her platform very logically and carefully. The first few chapters aim to prove that man is by nature monogamous, and that if given a chance, he prefers monogamy to promiscuity. Prostitution is a phase of the sexual question developed by civilization, and is due to delayed marriage and to the difficulties placed in the way of those unhappily married people who would, and should be, divorced. Another reason for prostitution is the ignorance of methods of birth control. Dr. Hooker believes in the latter, and would have the state disseminate knowledge concerning its technique.

The incongruities of present statutes regarding the sexual offenses are shown in Chapter VI.

Chapter VII gives the author's basis for the standardization of sexual conduct. Her three principles are, first, that all men and women shall be required by the law to acknowledge their sexual mates publicly and openly; second, that the standard adopted by the state should insure liberty in sexual selection; third, that the fatherhood as well as the motherhood of all children should be insured, and that all children should be regarded by the law as having equal rights.

The seriousness of venereal disease is emphasized—perhaps overemphasized. Certainly the author underestimates the concern felt by the man who becomes infected. One gets the impression that Dr. Hooker believes men to be quite callous in the matter of passing on their infection. Some of her accusations appear very unjust. For example, on page 216 she gives as reasons why the medical profession can do nothing, the fact that "it is a commercialized profession, and the self-interest of the practitioner is opposed to a sane system of venereal disease quarantine; and third, because doctors are in the main mere men after all, and their own experience leads them to favor or at least tolerate male sexual promiscuity. The medical student, whose morals are notorious, is not far removed from his more adult sire." Dr. Hooker objects to the present method of jailing and examining prostitutes while their partners are allowed to go free. This method constitutes a sort of regulation. Further encouragement to vice is given by venereal prophylaxis, to which, in any form, she is absolutely opposed. The prevention of venereal disease depends upon strict enforcement by women police of a law against fornication, and upon the reporting by name of infected persons, followed by their being placed under quarantine. This quarantine does not necessitate detention, but may be secured by enforced attendance at clinics.

The importance of coeducation and of proper mental hygiene and early sex instruction for the child is insisted upon.

The book closes with the statement of Dr. Hooker's program for the purification of sex life and the prevention of venereal disease. The execution of this program admittedly necessitates the control of legislation by women who think as Dr. Hooker thinks, and the enforcement of laws by women police officers and magistrates. Revolutionary changes will be required to bring about this state of affairs. One must concede the justice of many of Dr. Hooker's contentions, even while doubting the practicability of her remedies. For all who think at all upon these subjects, and even more for those who do not, this book will provide mental stimulation and wholesome food for thought.

Current Literature Department.

ABSTRACTORS.

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ABSORPTION OF DIGITALIS IN MAN.

EGGLESTON, C., and WYCKOFF, J. (*Archives of Int. Med.*, Vol. 30, No. 2). The absorption of high grade specimens of tincture of digitalis was found to be sufficiently uniform to permit the establishment of a satisfactory working average total dose, but it was found that occasional specimens of average biological activity were therapeutically unsatisfactory on account of poor absorption from the digestive tract. Tincture of digitalis shows definite evidences of action on the heart in from two to four hours after administration to man by mouth, though considerable variation in the capacity of different individuals to absorb digitalis was observed. [C. H. L.]

RENAL FUNCTION AND THE AMOUNT OF FUNCTIONING TISSUE.

ADDIS, T. (*Archives of Internal Med.*, Vol. 30, No. 3.) This is a first of a series of papers, the outcome of an attempt to draw quantitative structural deductions from functional results. It describes a test from which an estimate of the amount of functioning kidney tissue can be deduced. Two essential conditions are required. One is that the kidney shall be placed under conditions which call for great activity in urea excretion. The other is that there should be an absence of certain renal stimulants and depressants. Under such conditions, the writer believes that the ratio of the amount of urea in one hour's urine to the amount of urea in 100 c.c. of blood is a measure of the amount of secreting tissue in the kidney. The details of the procedure as used in clinical work are given. They are simple. The figure for normal adult is stated. The variation in different normals is 13.1 per cent.

This test is worthy of extended trial since none of the tests in general use at present gives any information as to the amount of functioning renal tissue. [C. H. L.]

THE TREATMENT OF THE SYPHILITIC LIVER AND HEART.

WILE, U. J. (*The Amer. Jour. of Med. Sci.*, clxiv, 3.) The writer points out that the great danger in the employment of anything approaching a specific method of treatment lies in the development of its routine or "rule of thumb" administration. Such treatment is particularly dangerous in syphilis of the liver or heart, in his experience. Several cases are described which bear out this opinion. The writer concludes that "the syphilitic liver and heart, in whatever stage of the disease, seem to do better when the process of repair is slow and when no great strain is placed on their normal functioning activities." [C. H. L.]

REPORTS OF THE ST. ANDREWS INSTITUTE FOR CLINICAL RESEARCH.

(Oxford Medical Publications, Vol. 1, pp. 208.) The St. Andrews Institute for Clinical Research represents an attempt to carry into effect certain principles of medical investigation set forth in "The Future of Medicine," by Sir James MacKenzie. For this purpose, it has enlisted the co-operation of all the practitioners in the town of St. Andrews, associated with what are commonly termed "research men." Such an association cannot fail to be of benefit to both groups and to medicine. The object of this association is to investigate the life history of diseases common among the people of the country from their onset to their termination.

This first volume of the Reports contains twelve papers which illustrate the methods in use at the Institute, and the results thus far obtained. The third paper, by Andrew Rowand, is an extremely interesting exposition of the present state of medical knowledge regarding common diseases. Another paper by the same writer presents a scheme for the investigation of disease in childhood. "The Response to Effort," by James Orr, points out that although this method of investigation has been applied principally to circulatory disease, there is evidence that it can be used with equal advantage to affections of other organs of the body.

The articles are all interesting and stimulating. It is too early to expect revolutionizing results from the work at the Institute. In the first volume of its reports, however, two facts appear clearly. First, that our ignorance of the common diseases is still large, and second, that if genius be "an infinite capacity for taking pains," we can reasonably expect that future reports will contain the work of genius.

[C. H. L.]

THE SIGNIFICANCE OF COLOSTRUM TO THE NEW-BORN CALF.

SMITH, T., and LITTLE, R. B. (*The Journal of Exp. Med.*, xxxvi, 2.) The writers gave one group of new-born calves colostrum, and withheld it from another similar group. The group given colostrum comprised ten calves. All lived through the period of danger from infection, and were kept for varying periods thereafter. The group deprived of colostrum comprised twelve calves. Nine died, seven within six days after birth, from septicaemia. They conclude that the function of colostrum is essentially protective against miscellaneous bacteria which are harmless later on when the protective functions of the calf have begun to operate and accumulate energy.

[C. H. L.]

COW SERUM AS A SUBSTITUTE FOR COLOSTRUM IN NEW-BORN CALVES.

SMITH, T., and LITTLE, R. B. (*Journ. Exp. Med.*, xxxvi, No. 4.) This article is a continuation of the one abstracted above. The writers administered the serum of normal lactating cows to calves from whom colostrum was withheld. They found that the serum successfully replaced the colostrum in preventing septicaemia. The results were better when the serum was fed in the milk and injected hypodermically or intravenously than when any single method of administration was employed.

These articles have an important bearing upon infant feeding.

[C. J. L.]

THE TREATMENT OF GYNAECOLOGICAL CONDITIONS BY X-RAYS AND RADIUM.

Knox, R. (*British Medical Journal*, October 14, 1922), discussing the treatment of gynaecological conditions by x-rays and radium, gives the following recommendations to such treatment, its advantages and disadvantages as well as its dangers: (Contraindications to Treatment.)

1. It is obvious that if a large portion of the fibroid has become converted into calcareous matter, and if the tumor is of large size, x-rays can have no beneficial effect. In doubtful cases a radiographic examination will reveal the extent of the degenerative change.

2. Most forms of degeneration should be excluded before x-rays are administered, though, if not very extensive, the treatment may be tried.

3. Malignant disease of the uterus calls for very careful consideration. Operative measures should be discussed. If it is impossible to remove the tumor, then there is no objection to a combined attack on the disease by x-rays and radium. Very careful application of radium tubes is necessary, and for this a general anaesthetic is indicated.

4. Infective conditions of the uterus complicating fibroids.

5. Suppurative salpingitis or pelvic peritonitis.

6. Inflammatory conditions of the other organs in the vicinity—namely, appendicitis, cystitis, etc.—should be dealt with before attempting to treat the fibroid.

7. Submucous pedunculated fibroids.

(Advantages of X-ray Treatment.)

1. The treatment is quite painless, and any ill effects are quite temporary.

2. The patient can live her ordinary life, merely arranging for one or two days of rest after each treatment.

3. No elaborate preparations are required.

4. The resulting menopause is not usually attended by such severe nervous disturbances as those following operation.

5. In patients whose general health is much impaired the recovery is very rapid when the haemorrhage has been arrested; moreover, the shock so often inseparable from hysterectomy is entirely obviated.

(Disadvantages.)

1. It takes a considerable time to effect a result; treatments may have to be given at intervals for several months. The use of the more penetrating radiation and the larger dose indicate that the time taken to produce the effect will be greatly shortened. If the correct dose is given the changes may be induced by one application.

2. The treatment is not invariably successful.

3. The tumor, though, as a rule, much reduced in size, does not entirely disappear.

4. Treatment may cause unfavorable changes in the blood.

(Dangers.)

Indiscriminate treatment by x-rays is very dangerous. The skin may be seriously damaged and severe burns induced. In one case—that of a patient who was treated for a supposed malignant growth of the pancreas for over a year—there was when I saw her, a large, fairly deep x-ray ulcer, and around it a large area of inflammatory reaction. I watched the ulcer for over a year and only used palliative applications. In about eighteen months it healed. An accident such as this is avoidable and should never occur in cases where the technique is intelligently carried on.

The dangers incidental to the action of the radiation on the deeply situated organs and tissues have been referred to in the consideration of the biological factor. The blood may be prejudicially affected by

the larger dose now in use. It must be carefully watched during the periods between the doses, and any severe fall in the number of the white cells is an indication for the suspension of treatment.

Overdosage to the deeper structures may at a later date give rise to serious disturbance of function. It must not be forgotten that there are such occurrences as late manifestations of x-ray effects; these may take on a variety of forms, and may show after an interval of many months or even years.

(J. B. H.)

PFEIFFER'S BACILLUS AND INFLUENZA.

Patterson and Williams (*The Lancet*, October 14, 1922) as a result of their investigations in influenza conclude that "bacteriological examination of lungs at autopsies over a period of twelve months, during which time three distinct prevalences of influenza attack were noted, yielded information which supports the view that the incidence-fluctuations of *B. influenzae* as a lung parasite are independent of the particular pulmonary condition associated with it."

(J. B. H.)

CHRONIC ENDOCERVICITIS AND ITS TREATMENT.

Burns, J. W. (*The Lancet*, October 14, 1922) summarizes his remarks on the treatment of chronic endocervicitis as follows:

1. Chronic endocervicitis should be recognized as a distinct pathological entity, apart from endometritis.
2. Any discharge from the vagina which induces discomfort in the patient is pathological and is usually due to chronic infection of the cervical canal.
3. That the condition is an infective one is proved by the fact that a positive culture can be obtained in 92 per cent. of cases. In 50 per cent. of cases the staphylococcus, either alone or in association with some other organism, is present.
4. Applications of various drugs, douching, tamponage, etc., only give temporary relief because the antiseptics do not reach the infecting agent deep in the lumen of the glands.
5. Ionization will bring about marked improvement in those cases in which erosion is not present.
6. For those cases associated with erosion the only method which will bring about a cure is the removal of the lower two-thirds of the cervical canal including the erosion.

(J. B. H.)

THE NORMAL INFANT'S CHEST. A PRELIMINARY REPORT ON THE X-RAY EXAMINATION OF THE CHESTS OF HEALTHY INFANTS.

Paton and Rowand (*The Lancet*, October 14, 1922) summarize their remarks on the normal infant's chest as follows:

1. All cases examined show definite shadowing, not homogeneous, within an area extending from the fifth to the eighth ribs, and bounded externally by a semi-lunar line extending outwards, at the level of the sixth or seventh ribs, about three-sevenths of the total distance from the middle line to the circumference of the chest. This area contains the root of the lung. It must be borne in mind that the infant's chest is proportionally shorter than the adult's.
2. All cases examined show in varying degree linear shadows, sometimes definitely arborescent, radiating from this area. Two main groups of these can readily be distinguished: (1) A basal group, mainly radiating downwards and outwards. The

shadows in some instances extend to the shadow of the diaphragm. The upper shadows of this group pass horizontally, or almost horizontally, outwards, sometimes extending, in the sixth or seventh interspaces, rather more than half-way to the periphery from their origin. (2) An upper group, radiating upwards and outwards from about the level of the fifth interspace. They may in some instances be traced as high as the second rib. Between these groups there is a wedge-shaped area in which no shadows are usually visible, though occasionally traces of horizontal streaking can be detected.

3. The position, size and shape of the heart shadow in these healthy infants show very wide variations.

4. As these results are obtained from healthy infants in whom no respiratory catarrhs have occurred, we conclude that the shadows seen represent structures in the healthy lung, and are due to pathological change.

5. Their arborescent character noted in several cases suggests that they are thrown by the tissues of the normal bronchial tree, whether or not other structures, such as blood vessels, take any part in their formation.

6. It seems probable that this shadowing will become gradually more noticeable with the growth of the individual, and the appearances in these healthy infants suggest that the limits of the normal in older individuals must be much wider than is commonly supposed.

7. In several of our cases minute dense circular shadows are observed. We avoid the use of the term nodular in the description of these because the word implies that such shadows are thrown by a nodule, which may or may not be the case. Such shadows could well be thrown by a cylindrical structure seen endwise. At any rate, in our cases their presence could not be due to a pathological deposit. If such a shadow as we have noted were increased in proportion to the size of the chest with advancing age, it would form a very noticeable feature in later pictures.

(J. B. H.)

THE TREATMENT OF NEURO-SYPHILIS.

Purves-Stewart, J. (*British Medical Journal*, October 7, 1922), summarizes his remarks on the treatment of neuro-syphilis as follows:

1. Every case of neuro-syphilis, diagnostically established by combined clinical and serological tests, demands assiduous treatment of the general syphilitic infection by every means at our disposal. Antisyphilitic remedies, including mercury, iodides, arsenobenzol, etc., are to be administered by the most efficient route, whether by the mouth, by injection or fumigation, by intramuscular injection or by intravenous injection into the blood stream. In no case should our remedies be directed exclusively to the nervous system.
2. In gummatous and meningo-vascular neuro-syphilis the foregoing antisyphilitic treatment is usually all that is necessary.
3. Some cases of parenchymatous syphilis respond, but the majority are resistant, to general antisyphilitic treatment, even when carefully and thoroughly carried out. Such cases are those which should be selected for supplementary subarachnoid treatment, whether intrathecal or intracisternal.
4. Intraspinal treatment by salvarsanized serum prepared from the patient's own blood, or by human or horse serum mercurialized *in vitro*, is specially suitable for cases of tabes and of cerebro-spinal syphilis, provided the cerebro-spinal fluid shows evidences of active meningeal reaction. It is also suitable for meningo-vascular spinal syphilis when resistant to ordinary treatment.
5. The direct intraspinal administration of arsenobenzol into the cerebro-spinal fluid is liable to pro-

duce acute softening of the spinal cord and should be discarded.

6. Cases of general paralysis, of optic tabes, of tabo-paralysis, and of tabes with negative reactions in the cerebro-spinal fluid, are not likely to benefit by intraspinal treatment.

7. Cases of meningo-vascular cerebral syphilis benefit much by intracisternal administration of salvarsanized serum.

8. General paralysis, if recognized in the early stage, is definitely benefited by intracisternal treatment. This method is superior in efficacy to intraventricular operations and entails much less risk to the patient.

9. Pyrexial treatment of early general paralysis—for example, by tuberculin, nuclein, etc.—may induce temporary remissions in the disease. So also can simple drainage of the cerebro-spinal fluid, combined with general antisyphilitic treatment.

10. Advanced cases of general paralysis, with extensive destruction of cortical nerve elements, are hopeless for curative treatment by any method whatever.

(J. B. H.)

THE WASSERMANN REACTION IN THE DIAGNOSIS AND CONTROL OF TREATMENT OF NEURO-SYPHILIS.

Dunlop, E. M. (*British Medical Journal*, October 7, 1922), summarizes his opinions in regard to the Wassermann reaction in the diagnosis and control of treatment of neuro-syphilis as follows:

1. Serological cure, not only in the blood, but also in the cerebro-spinal fluid, can be effected in a sufficiently promising number of cases to warrant energetic use and further improvement of the methods at present utilized in the treatment of neuro-syphilis.

2. It is very desirable, as has been emphasized by numerous workers, that in the routine treatment of syphilis and in the clinical investigation of nervous diseases the cerebro-spinal fluid should be examined in every case and its Wassermann reaction tested.

3. There is no evidence of a positive Wassermann reaction being provoked in a non-syphilitic patient as a result of the intravenous administration of novarsenobillon.

(J. B. H.)

THE BACTERIOLOGY AND VACCINE TREATMENT OF CHRONIC BRONCHITIS.

Mackey, L. (*British Medical Journal*, October 21, 1922), divides patients with chronic bronchitis into three groups:

1. Those who suffer from frequently recurring attacks of bronchitis but have an interval of several weeks' freedom between each attack.

2. Those who suffer from bronchitis throughout the cold months and are liable to acute exacerbations, but are comparatively free from cough or expectoration during the warmer months.

3. Those who are never free from bronchitis, but are worse during the winter, and are liable to acute exacerbations at any time.

All are liable at some stage to develop asthma as a complication of the bronchitis.

He discusses the bacteriology and vaccine treatment of this condition, summarizing his remarks as follows:

Recurrent and chronic bronchitis can be cured or relieved by treatment with autogenous vaccines.

When sputum is available it should be sent immediately by messenger to the bacteriologist, and not allowed to get cold.

From such a sample it may be possible to make a good vaccine.

Patients suffering from bronchitis usually have an

infection of the nasal passages, which is largely responsible for the bronchitis.

Cultures made from these nasal passages according to the method described in this paper show the same sort of germs as are found in the sputum and make better vaccines.

Nasal cultures should be made in every case of bronchitis in which a vaccine is required and cultures should be made from the sputum also when it is obtainable; in this way one gets a true picture of the underlying bacterial infections and can prepare a more efficient vaccine than if sputum alone is used.

When no sputum is obtainable a successful vaccine may be made from the nasal cultures alone.

Vaccines do not effect a permanent cure, except in those who cease to carry their nasal infection. But in carriers they confer a useful period of immunity.

It is probable that in many instances a rhinologist could throw light on the real nature of these associated nasal infections and suggest some useful local treatment. In the majority of cases the persons so infected are not conscious of any nasal catarrh, though a post-nasal discharge is often obvious to the physician.

THE SIGNIFICANCE OF RETINAL HAEMORRHAGES.

Hawthorne, C. O. (*British Medical Journal*, September 16, 1922), presents the following conclusions in regard to retinal hemorrhages:

1. That retinal hemorrhages may exist without recognized prejudice to vision, and ophthalmoscopic examination is therefore a necessary part of every clinical examination.

2. That such hemorrhages may be the first objective signs of serious disease, and a discovery of them, therefore, demands a complete examination of the patient.

3. That the recognition of retinal hemorrhage is often of high value in directing the observer to a correct interpretation of the clinical facts, while the prognostic significance of the observation *per se* is indeterminate.

4. That retinal hemorrhages do occasionally exist as isolated clinical facts, and when so existing are comparable to hemorrhages in other parts of the body (haematemesis, haematuria, haemoptysis, etc.), for which no ready explanation is at hand.

[J. B. H.]

THE LATER EFFECTS OF GAS POISONING.

Sandall, T. E. (*The Lancet*, October 21, 1922), in an interesting and practical article presents the following conclusions in regard to the late effects of gas poisoning:

1. In the first place, whether physical signs are present or not, every one of these cases still complains of definite symptoms more than three years after the armistice; no man in this area who has been awarded a pension for gas poisoning has as yet admitted that he has really recovered and that he now suffers from no after-effects, and it seems clear that every case still has some diminution of working capacity. The conclusion is that, if complete recovery does not take place at an early stage, the later effects of gas poisoning, if not permanent, are at any rate of very long duration, and lower the standard of health of the individual for an indefinite period.

2. In nearly half the cases (46%) there is evidence of emphysema or chronic bronchitis or both. The reports of the Chemical Warfare Committee, and in 1915, Sir J. Rose Bradford and Dr. T. R. Elliott, gave detailed descriptions of the pathological conditions found in the lungs in fatal cases. In addition to the damage to the mucous membrane of the air passages a severe disruptive emphysema was pres-

ent, and we may conclude that in the cases now under consideration the same changes would be found in a less severe degree. These cases, therefore, are unlikely to improve, and will probably tend to get worse in later life. The disability will be permanent; treatment on the usual lines will not differ from that of cases of emphysema and bronchitis in ordinary civil life.

3. There is a popular impression that pulmonary tuberculosis is a frequent sequela of gas poisoning, but I do not think this is borne out by the facts. In this area at any rate, I admit of course that a certain number of T. B. cases, invalidated out of the service for this cause, give a history of gas poisoning; the latter is not always substantiated, however. Gas poisoning may, of course, stimulate latent T. B. into activity, but it is a remarkable fact that of all the cases of gas poisoning in this area in receipt of pension not one has developed T. B. or is now under the supervision of the tuberculosis officer. My own feeling is that pulmonary tuberculosis is not a common effect of gas poisoning, and certainly not one of its later effects.

4. In nearly half the cases (45%) there is definite tachycardia, and the question of the causation of this condition, upon which prognosis and treatment depend, appears to me to be the most important problem in connection with the subject. In 85 per cent. of these tachycardia cases no sign of anything abnormal was found on examination of the heart. Is there any definite myocardial change, or is it due to some other cause? Captain R. A. Peters, R.A.M.C., in a report of the Chemical Warfare Committee, states that the changes in the heart in recent cases are secondary to the changes in the lungs, and are due to (a) increased resistance in lungs, and (b) oxygen want; but it is difficult to understand how this can apply to cases of some years' standing, in many of which there are no symptoms of any lung trouble. Tachycardia is undoubtedly more marked in cases of poisoning by the phosgene group. It may be functional only, or it may be due to a persistence of the polythaemia which is found in recent cases. I do not feel able to express an opinion, and I shall value the opinions of others.

5. The persistence of the gastric symptoms also raises the question of organic or functional causation. The evidence of any actual gastritis or chronic catarrh is not clear, and the nausea and vomiting may be merely functional.

6. Why should neurasthenic symptoms supervene on gas poisoning? Undoubtedly a certain number of cases do develop neurasthenia in a mild degree, but it is not clear whether gas poisoning has a direct causal relationship, or whether the neurasthenia is due simply to the shock to the nervous system at the time of the original casualty.

7. Another interesting point is the pain in the chest of which complaint is so frequently made. Is such pain any evidence of myocardial involvement, or is this also merely a functional manifestation?

8. Lastly, with reference to prognosis, more abscisally in those cases in which physical signs are absent or very indefinite, does the element of "pension" operate as a factor in the causation or continuance of symptoms?

[J. B. H.]

SPECIAL NUMBER ON SOME DISEASES OF INFANCY AND CHILDHOOD.

(*The Practitioner*, July, 1922). This special number of *The Practitioner* is devoted to diseases of infancy and childhood. There are a number of articles by prominent men such as Rolleston who writes on "Jaundice in the New Born"; Pritchard, "Constipation in Infancy and Childhood"; LaPage, "Vomiting in New Born and Young Infants"; Poynton, "The

Heart in the Severe Blood Diseases of Childhood"; and Berry, "X-rays in the Diagnosis of Gastro-Intestinal Disease in Childhood."

These papers are of a distinctly practical and clinical nature. This special number is of distinct interest and value. [J. B. H.]

NOTES ON STHENIC DYSPEPSIA—"HYPERCHLORHYDRIA."

BROWN, J. J. G. (*Edinburgh Medical Journal*, October, 1922), in a lengthy article with a remarkably elaborate bibliography discusses hyperchlorhydria or what he chooses to call "sthenic dyspepsia."

He takes up in this article the motor gastric functions such as peristalsis, hunger pains, etc.; the secretory functions; the clinical aspects in this condition and treatment. Under the latter he considers the methods and means of lowering the tone of the vagus, increasing the sympathetic tonus; medicinal means such as neutralisation of the gastric contents, increasing the saliva, anti-acid remedies, and diet.

The article is a long and detailed one that is well worth reading by those interested in this subject.

[J. B. H.]

SENSITIZATION IN 270 CASES OF ASTHMA.

LATHAM and COKE (*The Practitioner*, August, 1922), discuss the general subject of asthma and give the following facts:

Whatever its cause, asthma is much more likely to start in the early years of life than later on.

Similarly, the younger the patient was when the asthma started, the more likely is he to be sensitive to something.

Nineteen cases of sensitization to horse-dandruff occurred in asthmatics, who started their troubles in the first five years of life, while in only one case of asthma starting after the age of 35, was the patient found to be sensitive to an animal hair, especially cat-hair.

Sensitization to hen-feathers seems to occur much more frequently later in life.

In discussing the age of onset of asthma, it is important to remember that many patients have sneezed and coughed for a long time, even years before the asthma began. This still further emphasizes the early beginning of the complaint.

They do not claim entire reliability for the number of their cases sensitive to bacteria.

The fact that in America there is double hay-fever season explains the increase in the number of cases sensitive to the pollens in America as compared with those in England.

They conclude as follows:

Sensitization to foreign proteins can be very accurately discovered by means of the skin tests.

In many cases this valuable information leads at once to the cure of the asthma by the patient avoiding the protein or by his being desensitized to it.

[J. B. H.]

DUODENAL ULCER.

ROWNTREE, C. (*The Practitioner*, October, 1922), discussing the surgical treatment of duodenal ulcer emphasizes the fact that patients are not entirely cured once and for all after gastro-jejunostomy. They are so delighted at the change in their condition that very naturally they are apt to throw discretion to the winds and fill their stomachs with meals of a type they have been strangers to for years. All this must be prevented. [J. B. H.]

THE PROTECTION OF MANKIND AGAINST TUBERCULOSIS.

CALMETTE, A. (*Edinburgh Medical Journal*, July, 1922), discussing the means and method of protecting mankind against tuberculosis ends his remarks with the following striking paragraph:

The essential aim we must ever have in view is not, as some have supposed, the exclusion of possibility of bacillary contagion, but rather the realisation of contagion in all human beings, *as soon as possible after birth*, in a form which is inoffensive and protective for a sufficiently long time against serious infection. The establishment of such resistance on the part of infants ought then to become the immediate object of our constant endeavor. *The child must be immunised from his earliest age, first, because in infancy it is most exposed, and further, because it is relatively easy to shield it from repeated and massive contagion which irremediably imperils its life.* The practical conclusion which emerges from our present-day knowledge is that our efforts should principally be directed towards the protection of childhood.

This should be borne in mind by everyone dealing with our antituberculosis campaign.

[J. B. H.]

RELAPSING FEVER IN HODGKIN'S DISEASE.

HALL, A. J. and DOUGLAS, J. S. C. (*Quarterly Journal of Medicine*, October, 1922), report one of those rare and interesting cases of Hodgkin's disease (Lymphadenoma) which are characterized by relapsing fever. They have also reproduced the charts of the cases reported previously. The bouts of fever follow one another with considerable regularity over a period of months or even several years. The ascent and descent of the temperature curve is usually step-like, with subnormal figures between; during the apyrexial period the patient feels perfectly well.

If the interval between attacks is measured from the middle of one pyrexial wave to the middle of the next, the span is often of surprising constancy, so that the time of the appearance of the next attack can be predicted with accuracy. The number of afebrile days, however, is subject to greater variation.

The length of the span varies in the recorded cases from 5 to 36 days, but is usually from 15 to 25 days. The form of the curve is also quite constant.

The authors point out that a similar periodicity is met with in certain infectious diseases, as in relapsing fever, malaria, trench fever, and rat-bite fever, and suggest the possibility that Hodgkin's disease also may be due to a micro-organism.

[W. T.]

ARTERIO-SCLEROSIS IN CHILDREN.

EVANS (*Quarterly Journal of Medicine*, October, 1922), reports interesting observations on the arterial changes in four cases of chronic nephritis in children. The cases were all of the type known as renal infantism, with stunted growth and rickets; all showed hypertension, cardiac hypertrophy and albuminuric retinitis. Three died of uremia, the fourth of cerebral hemorrhage.

The arterial lesions were typical for diffuse hyperplastic sclerosis, and were specially marked in the kidneys, spleen and suprarenals, while the larger arteries were only slightly affected, or not at all. The lesions were identical with those of diffuse hyperplastic sclerosis in adults, showing marked endothelial thickening with fatty degeneration in the terminal arterioles, while the parent vessels showed endothelial proliferation without fatty degeneration.

The glomeruli and interstitial tissue showed signs of chronic inflammation.

No signs of syphilis or tuberculosis, which in adults may cause similar arterial changes, were found in these children.

Evans is of the opinion that in children as in adults, neither the arterial change nor the inflammation is primary, but that both are the result of an unknown pathogenic agent.

The importance of these observations lies in the fact that in the case of children, many of the factors operative in the arteriosclerosis of adults can be excluded.

[W. T.]

MEDICINE.—The second issue of "Medicine" contains articles by Zinsser, Lusk and Tileston. All three articles are fully as excellent and as authoritative as those appearing in the opening number of the periodical.

The first review by Zinsser on "The Etiology and Epidemiology of Influenza" is a clear and comprehensive résumé of our present knowledge on the subject. After an interesting and full historical discussion of previous epidemics, a mass of clinical observation and experimental data, collected during the pandemic of 1918, is considered. Inconclusive or poorly-controlled evidence is discarded. Concise, and exceedingly clear summaries are presented throughout the article and prevent the reader from being lost in the complexity of the etiological problem under discussion. Carriers, serological evidence of etiology, vaccination, inoculation experiments, filtrable virus, are all presented in detail. Although admitting finally that "we are in possession of no definite knowledge concerning the causative agent" Zinsser draws the following conclusion. "It is plain," he says, "from cultural studies, that the influenza bacillus is either the cause of influenza or that it is an almost universal complicating invader, which gains a foothold in the body almost immediately upon the establishment of the original infection."

In presenting the epidemiology of the disease the writer takes up in order former epidemics, the manner of transmission of influenza, the onset of epidemics of influenza, secondary outbreaks, and the origin of epidemics, with particular reference to the origin and course of the last pandemic outbreak of 1918. The problems of immunity are particularly discussed and are given with extreme clarity. Variations in virulence of the invading organisms, the resulting balance between virulence and immunity, and the adaptation of the organism to the host are considered in a very interesting and conclusive manner. The article is a model of careful and orderly arrangement and is a clear presentation of a very complex and difficult subject.

The second article is entitled, "The Specific Dynamic Action of Various Food Factors." In it Lusk discusses an extremely technical subject in his usually thorough manner. After giving Rubner's original conception of the specific dynamic action of food stuffs, and carefully and minutely discussing the experiments, he takes up in order the experiments of carbohydrate, fat and protein on the heat production of a living body. The action of each is considered in detail, summarized and conclusions drawn. The conclusions are as follows:

"One cannot escape the conclusion that in the presence of an abundant quantity of oxidizable fragments of carbohydrate material the heat production is raised to a higher level. Definite affinities for carbohydrate consumption are satisfied, which are not involved when the extra supply of glucose is being continually depleted under the influence of work, or is reduced as in fasting when the blood is under the regulating control of the liver. The production of increased heat after carbohydrate ingestion may be termed the *metabolism of carbohydrate plethora*."

"The same conclusion is reached regarding fat as

regarding carbohydrate, that in the presence of the amplitude of fat particles there is a *metabolism of fat plethora* due to the utilization of fat by special fat receptive cellular affinities.

"The specific dynamic action of protein consists in a specific chemical stimulus of the cellular protoplasm which is independent of the oxidation of the material through which the stimulus is applied. It may be termed the *metabolism of amino-acid stimulation*.

Finally Lusk concludes that the influence of food ingestion upon the basal metabolism of the quiet resting cell may be upon three independent mechanisms within the cell, (a) a mechanism which is receptive to a chemical stimulus derived from such amino-acids as glycocoll and albumin, (b) a mechanism of carbohydrate plethora which allows the metabolism of carbohydrate up to the limit imposed by self regulation, (c) a mechanism capable of receiving power from that quota of fat which, when in excess, increases the heat production of the cell.

This article, too, is remarkable for its concise and orderly presentation of evidence and its carefully drawn conclusions.

The third article is by Tileston on "Hemolytic Jaundice." This rather rare disease is described in an interesting and detailed fashion. The clinical pictures of both the congenital and the acquired types are fully discussed and a complete account is given of the various laboratory data necessary, or desirable, in establishing a diagnosis. The significance of the alteration in physiology in this disease is emphasized and a careful differential diagnosis is given between hemolytic jaundice and diseases with jaundice, splenomegaly or anemia. Careful attention is paid to treatment. Medical treatment is not recommended, as it is at best palliative. Splenectomy is the treatment of choice, and in the congenital type "a permanent cure may be predicted." It is also advised in the "primary" cases of the acquired type, as in those bordering on pernicious anemia. A point not emphasized by previous authors is the occurrence of gallstones in about sixty percent of the cases, and surgical treatment of this complication is advised whenever feasible.

In discussing the prognosis of the disease Tileston says that "in the congenital type the prognosis is good as to life, there being almost no instances of death from the disease itself. The prognosis of the acquired type is less favorable, death in many instances resulting directly from anemia or from intercurrent infections. Recovery may occur spontaneously but is not the rule."

[C. M. J.]

ADVANCED CHRONIC NUTRITIONAL DISTURBANCES IN INFANCY.

UTHEIM, K., *Journal of Metabolic Research*, June, 1922, Vol. 1, page 803, came to the following conclusions:

1. In the majority of the cases the causative factor is not a single one. In most cases both the alimentary and infectious factor are present.

2. It is believed that faulty feeding is the main factor in the etiology of atrophy, and that a quantitative and especially a qualitative starvation is responsible for the development of most cases. In addition, it is believed that parenteral infection is an important contributing factor in lowering the vitality of artificially fed infants, and renders them less able to thrive on artificial feeding. A stagnation of the stomach and upper intestinal content takes place. A coli invasion follows, and the nutritional disturbance is initiated.

3. In atrophic infants there is usually present an absolute and also a relative anemia.

4. Experiments on rabbits have shown that during

complete starvation with deprivation of fluid, the blood volume falls below the normal value for the body surface, as the result of water loss from the blood. However, by giving only enough food and water to prevent further weight loss, the blood volume is usually rapidly restored and quickly reaches a value above normal for the body surface. Those animals in whom the normal blood volume was not regained did not do well, and would not gain in weight, even if food was given in abundant amount.

5. The relatively high heat output indicates that these infants have a high caloric need. The 70-100 calories per kilo of body weight sufficient to give gain in weight in a normal infant are not sufficient for an atrophic infant. If the caloric loss is covered, nothing will be left for growth, and the undernourished condition will continue. The sugar tolerance of these infants is higher than that of normal infants. The feeding, therefore, should be of high caloric value. This is accomplished by adding easily digested carbohydrate to a whole lactic acid milk feeding. In any emergency due to the poor nutrition a glucose injection or a transfusion has proved of great value. The circulation is improved and food is in this way given the organism, without passage through the intestinal tract, already low in absorptive power.

[H. G.]

ILEOCAECAL KINKS IN APPENDICITIS.

PORTER (*Ind. Med. Gazette*, October, 1922), calls attention to the frequency with which ileocaecal kinks are found in operations for appendicitis. In one case he found a band about six inches long, loaded with fat and containing fairly large blood vessels, instead of the usual thin membrane. He is inclined to think that the presence of an ileocaecal band, not looked for at operation, is responsible for the discomfort which many patients suffer after appendectomy, and which is usually ascribed to post-operative adhesions. At any rate, the surgeon should inspect the lower part of the ileum in every appendix operation and deal with any band which may be present. Care should always be taken to remove the appendix flush with the caecum. A small portion left behind may become inflamed and necessitate a second operation.

Different views are held by surgeons as to the origin of these ileocaecal bands. Moynihan and Mayo consider that they result from inflammation of the appendix. Arbuthnot Lane, on the other hand, believes that they are suspensory ligaments whose function it is to support the viscera which tend to become displaced downwards into the pelvis.

[L. D. C.]

LEVATOR HERNIA (PUDELAL HERNIA).

CHASE, H. C. (*Surgery, Gynecology and Obstetrics*, December, 1922) reports a case operated on by the combined abdominal and perineal route, there being only thirteen cases reported in the literature. The condition, therefore, is one of extreme rarity. It has always been considered incurable and, in the thirteen reported cases, operative relief has been undertaken in only five; only one has been reported as a cure; one case had seven major and minor operations without relief; so that the case reported is of unusual interest as the result has been entirely satisfactory.

The author describes the anatomy clearly, and gives a very excellent written, as well as pictured, description of the combined operation used for cure. The illustrations really tell more than the text. The reader is, therefore, referred to the original article.

[E. H. R.]

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THE BOSTON LYING-IN HOSPITAL.

The opening of the new Boston Lying-in Hospital, 221 Longwood Avenue, is an epoch in the medical history of Boston. Opportunity for public inspection was given December 28, 1922,

and visitors were escorted about the building and given every opportunity to observe the features of a modern hospital devoted to the care of obstetric cases.

The plans were drawn by Coolidge and Shattuck, architects, and were submitted to Dr. J. B. Howland, superintendent of the Peter Bent Brigham Hospital. Dr. Howland was in close association with the architects, and much credit is due him for his study of the plans and suggestions offered relating to the medical problems of a hospital.

This hospital has an honorable history, for in addition to the care of patients, the teaching of the obstetric art has been an important feature of the functions of this institution. It was established in 1832 by the cooperation of the Massachusetts Humane Society and the Massachusetts Charitable Fire Society. It was first located on Washington street near Waltham street. In 1885, a new building was erected at 133 Springfield street. This building is now the Home for Aged Men. After 24 years the hospital was closed for lack of funds and was reopened January 1, 1873, at 24 McLean street, largely through the efforts of Dr. William L. Richardson, who has served for fifty years in various capacities, as Visiting Physician, Trustee and President of the Corporation. He is now President Emeritus. In 1890 the Hospital was enlarged by the purchase of four buildings on McLean street, which were altered so as to make one hospital.

Previous to the reopening of this hospital fifty years ago, there was no place for the care of obstetric cases other than homes of patients, or for teaching physicians and nurses in the care of obstetric cases.

Patients were transferred from the McLean



Street Hospital to the new Hospital, January 1, 1923. The Hospital maintains an out-patient service and since 1873 has cared for over 54,000 mothers in their homes and more than 29,000 in the Hospital. The training school for nurses has graduated 1,000 nurses. Three hundred physicians have served as House Officers and in the Out-Patient Department and more than 5,000 medical students or physicians have received special instruction in the clinics. Pregnancy clinics are maintained in six localities in Boston. Last year more than 2,800 expectant mothers attended their clinics.

Recognizing the necessity for a more modern hospital, public spirited persons bought about an acre and a half of land on Longwood Avenue, which was given to the hospital as a site for a building, although about \$430,000 in addition was secured by subscription. The war put a stop to further activities. After the war was brought to an end the General Education Board allotted \$300,000, with the condition that the Hospital should be erected on this lot and an affiliation with the Harvard Medical School consummated, whereby clinical instruction should become a feature of the hospital work. These funds have been augmented so that now about \$800,000 was available for the building of the hospital. This sum was not sufficient to provide for wards for private patients which would cost about \$500,000, and hence this feature has been held in abeyance until adequate funds shall be forthcoming. There is still lacking about twenty thousand dollars for the complete equipment of the Hospital.

The Hospital has a capacity for ninety-five patients and ample provision has been made for the care of septic or other cases requiring isolation. The provision for the care of premature babies is ample, an especial feature being the automatic regulation of any desired degree of humidity and temperature. A system of lighting for the operating rooms has been installed which is unique, for by the use of certain screens, artificial daylight is provided for the operating field, the chromatic rays being obstructed or so blended as to create a white light. This is the latest development of lighting engineers, as indeed every facility and the equipment represent the last word in adaptation to the purpose in view.

The Hospital is not self-supporting and will give to charitably disposed people an opportunity to extend the advantages of scientific medicine to their fellow creatures.

The creation of this Hospital places a great responsibility on the medical profession, for with the most efficient machinery at hand, this community may reasonably expect a service second to none in the world, and best in the care of this type of patients and in medical education.

The officers of the Hospital are as follows:

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AN OPPORTUNITY TO ENLIGHTEN HOSPITAL TRUSTEES.

The article by Dr. Channing Frothingham under the above title should be carefully considered by hospital trustees.

When the rules against the admission of syphilitic patients were first adopted, this disease was less well understood than is the case at the present time. As Dr. Frothingham has pointed out, this disease may be quickly converted into a noncommunicable disorder and with reasonable care hospital workers are in no danger of contracting it. It would be quite feasible to admit such cases into all general hospitals where quarantine could be maintained during the communicable stage. In all probability the adoption of this custom would do much to limit the spread of the disease and result in earlier cure than otherwise.

It may be that the very general custom of refusing syphilitic patients may be due to the inertia of hospital authorities. Changes are apt to follow recommendations of the medical staff, and trustees may not have considered this particular subject for many years.

THE DANGERS OF APATHY.

CONDITIONS affecting medical practice are constantly changing. Scientific achievements are

enlarging the fields of medicine, but coincident with the extension of life-saving methods, forces are at work which tend to confuse the minds of people unable to apply logic to the arguments for or against the benefits conferred by medicine. Active propaganda in favor of unusual forms of treatment for physical and mental ills are in progress.

One form after another of unscientific practice is exploited vigorously. For a time considerable numbers become enthusiastic followers of the teachings of selfish or deluded proponents until the accumulated evidence of inefficiency brings about general indifference, the peak of enthusiasm is passed and the stage of decline supervenes. For a time Christian Science held the attentions of the drifters, to be followed by osteopathy, which has seemed to have passed its zenith of popularity. Then chiropractic, which Lovett referred to as the "least reputable of the three manipulative sisters," came upon the stage, and through the application of the dictum that "advertising pays" has, in addition to the usual extravagant claims of faddists, poured out money lavishly in newspaper publicity, circulars and personal appeals for recognition.

Most of these claimants for recognition base their appeals on statements of people who have not found the relief sought for in regular medicine. The reasoning seems to be that one is ill because honest medicine has not brought expected relief, and, therefore, educated practitioners are to be avoided and other resources must be sought. After having had all of the almost countless numbers of unscientific claims presented to the human race which have flourished, the good, if any existed, extracted, and the essential theories discarded, we are to have another invasion of a form of mental healing. Whether this will bring more than temporary relief to troubled minds is unlikely, but the medical profession will not participate in the movement, for, according to reports, there is nothing in it apparently beyond the application of simple known rules governing the relation of a dominant mind and engaging personality with the seekers for relief.

The strangest feature of the situation is that reputable newspapers have been willing to devote column after column to a recital of the details of personal history of the exponent of the method and testimony of the benefits to be secured. Even Pasteur, with the inspiring record of his achievements, has been regarded as less important in the public press, and an equal amount of space would be denied to the most eminent scientist of today. The articles may be good advertising, however.

The result of all these appeals for endorsement is unfortunate, for in so far as people encourage these non-medical treatments there is an unsettling of reasonable confidence in and support of medical practice and medical institutions. Physicians, as a class, do not care to devote time and energy to fruitless arguments,

for all such efforts are misconstrued by many, and the minds of a considerable proportion of the population are as responsive to illogical claims as the body is to the communicable diseases of childhood. There are epidemics of mental disorders almost as far reaching as are found with diseases in which there are demonstrable lesions.

There appears to be no effective preventive treatment that can be applied to epidemics of mental perversions because the believers in medicine feel secure in their convictions and cannot overcome the inertia born of apathy.

This was strikingly illustrated in California when the chiro-osteo combination found the laity and the profession unresponsive to the educational campaign carried on by the League for the Conservation of Public Health, presidents of Medical Colleges, and the *California State Journal of Medicine*. This apathy was disheartening and now the very ones who failed to cooperate with the forces striving for general interest and support are complaining because of the result of the election and putting the blame on the shoulders of those who worked the hardest in the interest of science and sanity.

It is ever thus! In our own state our Committee on Legislation has not always received the support to which it is entitled. Our battles are before us. Are we ready for the contest?

THE RÔLE OF TECHNIC IN SURGERY.

In the past years of rapid surgical advancement it has been but natural with the extensive opportunity for the development of the new surgical procedures and the improvement of older surgical methods that attention should have been focused to a great extent upon that part of surgery which particularly appeals to the eye, namely, manual dexterity, precision and rapidity of execution. This worship of technic in surgery has, without doubt, been of inestimable value, establishing, as it has, the very certain rewards which may be obtained by means of rapid, precise and gentle methods as opposed to the penalties which must be incurred from technic of the opposite variety. Unfortunately, for a time with the over-exaggeration of this department of surgery in some hands, it appeared possible that surgeons might revert to their original positions in the medical world as mere artisans, subservient to and dependent upon the minds of those men primarily interested in the factors producing abnormal states of health and function.

It now, however, seems that the lessons of technic having been well learned and properly evaluated, surgeons as a whole are coming to prize technic no less but to appreciate the more that when not directed by intelligent preoperative study and sound and experienced judgment, technic in itself tends to become a peril

to the patient. There still exists, however, today a type of surgeon who has by travel, study and close observation so perfected himself in this branch of surgery to the neglect of the general subject that to the inexperienced observer he appears as a master surgeon, while in truth his one-sided state makes him not only an unfinished surgeon but in many cases a really dangerous one, confident and daring as he is in the security of his superior technical ability. Much of the inferior and oftentimes unnecessary surgery done in this country is directly traceable to the exploitation of technic of this type.

It is unnecessary in urging against development of this sort to call attention to the unusual opportunities for clinical study which the surgeon possesses, being able in a great many cases, first to view the problem from the point of view of the clinician and then as the clinical pathologist to examine by sight and by touch the living pathology, and to point out particularly to these men not yet mature in surgery that technic, while indispensable to the surgeon, when emphasized leads to the detriment of other essential surgical qualifications.

I believe that a majority of experienced surgeons would agree that they themselves would prefer to be in the hands of a surgeon of but moderate technical ability but possessing sound judgment and a broad general surgical knowledge as compared with being in the hands of a surgical enthusiast possessing marked technical ability, but lacking knowledge and interest in the other departments of the subject.

Surgeons possessing such a dual opportunity should not permit the glamour of technic to distract them from greater and greater interest in the critical study of surgical lesions and to the advancement of that department of surgery which, in the past few years, particularly, has profited by this opportunity, namely, clinical surgical research.

EXAMINATION OF CHILDREN OF PRE-SCHOOL AGE.

At the suggestion of the education committee of the Civic Club, New York City schools have cooperated with the City Department of Health, the Red Cross, and the New York State Association of Consulting Psychologists in examining mentally and physically 1000 children of pre-school age. The remediable defects which two-thirds of the children were found to have were mostly dental, but included also hypertrophy for correction were given. The defects found were mostly dental, but included also hypertrophied tonsils, defective nasal breathing, malnutrition, pulmonary diseases, organic cardiac disease, nervous disease, and orthopedic defects, according to *School Life*, published by the Department of the Interior.

An individual psychological examination was

given to each child and the group was divided according to their intelligence quotients. According to the report "there is reason to believe that the introduction of pre-school examinations in school systems will promote the physical welfare of school children, increase the benefits of mental hygiene in schools, advance educational standards in method and content, lead to greater elasticity in the curriculum, save time and energy of teachers, tend to decrease unnecessary retardation and elimination, and make each child an individual entity instead of a fraction of a class."

News Notes.

WORCESTER DISTRICT MEDICAL SOCIETY.—The regular meeting of the society was held Wednesday, January 10, at 4:15 p.m. at the Worcester State Hospital, Belmont Street.

Dr. Walter Timme, New York City, lectured on "The Status-thymico-lymphaticus and the Inherent Compensatory Possibilities," accompanied with lantern slides.

Dr. W. A. Bryan, superintendent of the Worcester State Hospital, opened the discussion.

As voted at the last meeting your committee has ordered the A. M. A. Caduceus and expect they will be ready for distribution about the middle of the month. They may be secured from Drs. Shannahan, R. J. Ward, Hurd, Ellison or MacKay at \$1.20 each. It is interesting to note that at its December meeting the Springfield Academy also adopted the Caduceus.

SPRINGFIELD ACADEMY OF MEDICINE.—The regular meeting of the Springfield Academy of Medicine was held Tuesday, January 9, 1923, at 137½ State Street, at 8:30 p.m. Dr. J. Whitridge Williams of Baltimore, Professor of Obstetrics at Johns Hopkins Medical School, read a paper entitled "Sane Obstetrics."

ALLEN G. RICE, *Secretary*.

SHARON SANATORIUM.—A recent bequest has been made of \$1000 and the sum of \$20,000 has been given to establish a "free-bed" for women or children as a memorial to Louis Agassiz Shaw.

HARVARD MEDICAL SOCIETY.—A meeting was held in the Peter Bent Brigham Hospital Amphitheatre Monday evening, January 8, in memory of Louis Pasteur. Dr. Simon Flexner of New York and others spoke.

DEATH RATE IN BOSTON.—During the week ending January 6, 1923, the number of deaths reported was 255, against 211 last year, with a rate of 17.21. There were 43 deaths under one year of age, against 29 last year. The number of cases of principal reportable diseases were: Diphtheria, 66; scarlet fever, 56; measles, 63;

whooping cough, 95; typhoid fever, 1; tuberculosis, 18. Included in the above were the following cases of non-residents: Diphtheria, 3; scarlet fever, 3; measles, 4; tuberculosis, 11. Total deaths from these diseases were: Diphtheria, 4; whooping cough, 4; tuberculosis, 15. Included in the above were the following cases of non-residents: Diphtheria 1; tuberculosis, 3.

ADDISON GILBERT HOSPITAL, GLOUCESTER.—

At a meeting of the staff of the hospital, held on Wednesday, January 3, at 8 p. m., Dr. F. L. Burnett of Boston spoke on the subject of "Nutrition." Dr. Burnett began by reviewing the studies of some of the men who had made contributions to the knowledge of the action of the gastro-intestinal tract, and mentioned the work of Beaumont, Pavlov and Cannon. Then he spoke of the food accessory substances or vitamins, and told how the absence of some of these substances in the diet produced deficiency conditions of disease, as scurvy, rickets, neuritis, etc. Finally, he alluded to the action of some of the faulty food factors in producing a disorder of metabolism and intestinal indigestion; and he related how the elimination of these factors by improving the character of the alimentary mixture is likely to increase the amount and kind of nourishment to be derived from the food, and in this way serve as a means of maintaining health and the prevention of disease.

S. P. F. Cook, M.D., *Secretary.*

Miscellany.

FIRST YEAR'S WORK OF THE CORNELL CLINIC.

DIGEST OF THE FORTHCOMING ANNUAL REPORT OF THE FACULTY TO THE UNIVERSITY.

DURING the first year of the Cornell Pay Clinic, closing October 31, 1922, 113,981 visits were made to the Clinic by 22,409 different individuals. Five afternoon and two evening sessions of the Clinic were held weekly with some work in the mornings, the average attendance at the Clinic per session being 317. The Clinic is nearly three times the size of the free dispensary formerly conducted in the same building.

The division of attendance among the different departments or sub-clinics is of considerable interest, as shown in the following table:

Medicine	14,797
Gastro-enterology	4,924
Endocrin	930
Health	268
Diagnostic	369
Pediatrics	1,007
Arthritis	170
Diabetes	833
Protein sensitization	1,828

Cardiac	213
Surgery	5,080
Dental	1,999
Hypertension	40
Neurology	3,799
Gynecology	6,876
Urology	13,655
Skin	15,411
Ear	9,812
Eye	8,555
Nose and Throat	14,380
Psychiatry	959
Speech Defect	43
Orthopedie	5,822
Therapeutics	2,272
X-ray Therapy	29

113,981

It is the aim of the Pay Clinic to reach persons of moderate means who are unable to pay fees usually charged for adequate medical service for the condition from which they suffer, and who do not wish charity. In order to protect the private practitioner, on the one hand, and not to duplicate the field covered by the free dispensary, on the other, an economic classification of those who might properly be admitted was drawn up after much thought by members of the faculty of the College, with the aid of the staff of the Committee on Dispensary Development, and of economists and statisticians. Three factors are considered: (1) income, (2) size and responsibilities of family, and (3) cost of the type of medical service which is required.

The following classification is based upon the tabulation of nearly twenty thousand consecutive cases:

CASES ADMITTED.

Regularly in the Pay Clinic group (according to the social-economic classification)	10,202
Temporarily in the Pay Clinic group, because of unemployment, previous illness, or other financial emergency ..	207
Because of the unusual expense of the diagnosis and medical care required ..	26
On the border line or below the level of ability to meet the Pay Clinic fees, but admitted for various reasons ...	3,085
Doubtful, but admitted temporarily for a single examination or treatment, with decision as to permanent classification and admission suspended ...	874
No rating made	117
Admitted because of special interest as teaching cases	3
Total	14,514

CASES REJECTED.

Unable to meet Pay Clinic fees	4,520
Able to meet fees of private physicians ..	322
Rejected for miscellaneous reasons	196
Total	5,038

It was a matter of some surprise that so many more applicants had to be refused admission because they could not afford to pay the Clinic charges than because they could afford to pay fees of private physicians. At first the admitting staff did not appreciate the importance of being careful about the lower limit, though at all times they have been careful of the need of protecting the private physician. It was found, however, that these patients could not afford continued treatment, and must either be carried without charge, or be sent where they could obtain treatment free. It is the impression of the admission department, though these figures are not yet available, that of those accepted by far the larger number are near the lower economic border line. A special study is under way of all the data secured from the admission of patients during the first year, and a report will be published later.

One of the features of the management of the Pay Clinic is the careful limitation of the number of patients in proportion to the medical staff available, so that the doctors shall have sufficient time to give complete and adequate attention to each individual patient. Even under the great pressure caused by the throngs of patients during the opening weeks, this principle was maintained. It is carried out in practice by giving each patient an appointment at a definite day and hour.

The medical staff of the Clinic at the close of the year included 122 physicians in addition to the senior members of the faculty, who, in nearly all departments, attend for teaching and consultation purposes at specific intervals.

The medical aspect of the clientele of the Pay Clinic is radically different from that of the old dispensary. The present clientele includes a large and unusual proportion of problem cases. In this respect the Clinic has faced the College with problems of much greater difficulty than was anticipated, but there has been a corresponding gain in medical interest and opportunity for service. Much thought has been given to the selection and duties of a non-medical staff of nurses, clinic executives, etc., so that they might relieve the physicians of routine administrative and clerical matters, and when the physician sees fit, act as agents for obtaining pertinent facts from patients, or for explaining details of routine treatment.

A fairly large percentage of the patients come to the Clinic for the service of specialists directly. Also many of those going direct to General Medicine are cases demanding the special skill of the internist. The average time spent by the doctor personally with each patient at each visit in General Medicine is about half an hour; the average time for new visits is considerably more.

From the first, patients have been admitted for diagnosis when referred by a physician. They are then returned to the referring physician for treatment, or treated in the Clinic, ac-

cording to the wishes of the man sending the case in. During the past year 1360 cases have been referred by 824 doctors. The cases are admitted to the diagnostic division of the General Medical Department, unless the services of one of the specialists is specifically requested. In that case the patient is admitted direct to the department named. Recently the Professor of Medicine, at the request of the faculty, went over in detail a group of diagnostic histories and reports to the referring physicians. In general, he found them satisfactory, though some were too brief and wanting in details. Steps have been taken to improve the administration of this very important branch of the Clinic's work. The Diagnostic Clinic is a very close bond between the Clinic and the profession. By rendering prompt, well-considered services in the occasional perplexing case in which the physician desires the opinion of one or more trained men who have special diagnostic aids available, the Clinic benefits the profession and through it the public.

The Clinic has had to deal with large numbers of rejected applicants, many of whom asked for information as to where to go, either as to free clinics or to private practitioners. Cornell has felt a responsibility for giving some definite advice in such cases. A list of physicians from hospital staffs, in different parts of the city, has been drawn up by the faculty. Four names are given, with their hospital affiliations indicated; three of these are not associated with Cornell.

Medical teaching in the Pay Clinic has proceeded very satisfactorily. In most of the departments it is the unanimous opinion that both the quality and the quantity of the teaching material is improved.

As to finances, the 113,981 clinic visits cost \$231,875.40, exclusive of the cost of the new equipment, which was, of course, very high at first. The income from patients was \$179,685.09; in other words, the average visit cost the Clinic \$2.03, whereas the average income per visit from patients was \$1.57. The deficit has been met about half by the College and about half by the Committee on Dispensary Development of the United Hospital Fund. It is obvious that in order to meet fairly the obligation of giving the service to patients substantially at cost, so that they would not be accepting charity, the deficit must be reduced or the fees raised. Costs by departments have been worked out. Economies are being followed through when possible without impairing the quality of the work. The increase of the fee is under consideration.

At the end of the first year of the Pay Clinic, it is still too soon, concludes the report, to speak with finality. The Pay Clinic is a sincere effort to meet a real medical need felt by many thousands of persons in this great community. During its first year the Clinic has surpassed the expectations of the Cornell faculty, both on the medical side and in the number of patients. The

one permanent essential to the success of any such enterprise is the rendering of a high quality of service. If, in addition, the Clinic can contribute to medical instruction and research, can cooperate with the practicing physician, can be made self-supporting, can be so managed as to eliminate the unfavorable, so-called "charity" atmosphere commonly associated with clinics, there is a great gain. But the Clinic stands or falls on the rendering of a higher grade of medical service than can otherwise be secured by patients of moderate means at any rate which they can afford.

BODY WEIGHT AND LONGEVITY.

Although it has been generally known that the weight of the body in relation to its height is an important factor in determining the health of the individual, it has been only recently that the long experience of the insurance companies has crystallized the facts into tangible form.

The Metropolitan Life Insurance Company reports the following statistics:

"Among short men, that is, those below five feet, seven inches in height, at the age period 40 to 44 years, an excess of 20 per cent. in weight involves an added mortality of 30 per cent. above the normal. A 40 per cent. increase in weight in such individuals involves an increased mortality of nearly 80 per cent. Among tall men, that is, those over five feet, ten inches in height, the adverse situation is even more marked. For, among them, at ages 40 to 44, a 20 per cent. excess in weight carries a 40 per cent. increase in mortality, and a 40 per cent. excess in weight doubles the mortality.

"On the other hand, underweight, which is common enough, presents a different picture. In general, underweight is an advantage, provided, of course, the proportion is not too great. It is a serious impairment in early adult life, especially among taller men. Those who are over five feet, ten inches, and who are 20 per cent. below the average weight for their height show an increased mortality of 30 per cent. Those having 30 per cent. underweight have a 50 per cent. excess mortality at these early ages. But, from age 40 onward, there are apparently no such penalties for underweight and this condition, in fact, becomes a distinct advantage; for these are the people who have the best mortality rates."

FURTHER REDUCTION IN THE TYPHOID DEATH RATE.

The Statistical Bulletin of the Metropolitan Life Insurance Company reports, for the Industrial Department, with approximately fifteen million policy-holders, only 638 deaths from typhoid during the first ten months of 1922, as

compared with 717 for the same period of 1921. As there was a material increase in the number of persons insured, there has been a marked reduction in the death rate.

Deaths and death rates per 100,000 for typhoid fever, Metropolitan Life Insurance Company, Industrial Department, 1911 to 1922:

	Deaths	Rates for 100,000
1922*	811	5.9
1921	907	6.7
1920	875	6.7
1919	903	7.3
1918	1324	11.5
1917	1315	12.1
1916	1320	13.0
1915	1251	12.9
1914	1487	16.1
1913	1604	18.4
1912	1571	19.1
1911	1778	22.8

*Estimated for 1922.

DR. M. DORSET RETURNS FROM ANTHRAX CONFERENCE.

Dr. M. Dorset of the Bureau of Animal Industry, United States Department of Agriculture, recently returned from London where, on December 5, he attended in an unofficial and consultative capacity, a meeting of the International Advisory Committee on the Prevention of Anthrax, a committee made up of delegates from England, India, Australia, Italy, Sweden, Germany, France, Union of South Africa, and Belgium. This body, which reports to the International Labor Office of the League of Nations, has for its principal object the study of methods of disinfecting wool, hides, hair, and similar products so as to protect workmen from the danger of infection with anthrax, a fatal blood disease of many domestic animals which is also very dangerous to humans and is sometimes known as "wool sorters' disease."

England has been particularly active in taking steps to eliminate the danger of infection of workmen in wool-handling establishments, and the committee agreed that for wool the English method seems to be effective. Those who attended the conference were taken to Liverpool at the expense of the British Government to inspect a large disinfecting plant constructed at a cost of \$750,000. The cost of disinfecting wool brought into the country is said to be approximately 3 cents a pound.

The committee decided that in addition to disinfection precautions it is advisable to prepare a list of countries from which wool can be imported with safety without disinfection. It was recommended that hair and bristles always be disinfected and that under certain conditions wool should be. In making up the list of countries from which wool can be admitted with safety without disinfection it was suggested the decision should be based upon the prevalence of cases of human anthrax in industries, the occurrence of the bacilli in products, and the pre-

cautions that are taken by the various countries to prevent the spread of the disease among animals.

Although wool can be disinfected successfully, no method has yet been devised whereby hides and skins can be effectively treated without damaging them, and it seems advisable, according to resolutions adopted by the committee, for all countries concerned to make efforts to discover a suitable method.

So far there seems to be little cause for alarm over the danger of anthrax to workers in the United States. The best figures available show that in the 8 years up to and including 1917 there were only 222 deaths of humans from anthrax in this country. Of these only about 25 or 30 per cent were of industrial workers. About 20 per cent of the deaths during this period were of farmers who became infected in most cases as a result of skinning animals that died on the farms. There is no protection against this kind of infection except burying animals dead from unknown causes without trying to salvage the hides. Those who handle wool, hides, and hair at docks also would not be protected by disinfection which must be done after the wool has been unloaded and taken to the disinfecting plant.

Now and then stories have been published of cases of anthrax that have been contracted as a result of infected shaving brushes made of horse hair. Brush manufacturers in this country some time ago agreed to use no more horse hair in the manufacture of brushes of this kind. [U. S. Department of Agriculture.]

SIGHT CONSERVATION.

ONE of the ten New York Department of Health eye clinics is maintained especially as a sight conservation clinic, coöperating with the sight conservation classes in the public schools. The staff is composed of oculists with years of training in eye refraction of the mentally dull and of very young children. Patients are sent as the result of combing of the public schools for fit candidates, and the sight of many is aided or restored to those who might otherwise be permanently neglected.

NEW AND NONOFFICIAL REMEDIES.

Ven Calcium Cacodylate Ampules, $\frac{3}{4}$ grains: 1 Cc. contains calcium cacodylate-Ipeco (See New and Nonofficial Remedies 1922, p. 55), 0.05 Gm. ($\frac{3}{4}$ grain).

Ven Calcium Cacodylate Ampules, $1\frac{1}{2}$ grains: 1 Cc. contains calcium cacodylate-Ipeco, 0.097 Gm. ($1\frac{1}{2}$ grains).

Ven Calcium Cacodylate Ampules, 3 grains: 1 Cc. contains calcium cacodylate-Ipeco, 0.195 Gm. (3 grains).

Ven Calcium Cacodylate Ampules, 5 grains: 1 Cc. contains calcium cacodylate-Ipeco, 0.324 Gm. (5 grains).

Ven Calcium Cacodylate Ampules, 7 grains: 1 Cc. contains calcium cacodylate-Ipeco, 0.453 Gm. (7 grains). Prepared by the Intra Products Co., Denver, Col.

Mercurialized Serum-Lederle for Intravenous Injection.—Each package contains the equivalent of $\frac{1}{3}$ grain (0.022 Gm.) of mercuric chloride in 8 Cc. normal horse serum. The initial dose is $\frac{1}{12}$ grain of mercuric chloride. This may be gradually increased to $\frac{1}{3}$ grain. For a discussion of the actions, uses and dosage of mercurialized serum, see New and Nonofficial Remedies 1922, p. 189. Lederle Antitoxin Laboratories, New York.

Silvol.—A brand of protargin mild—N. N. R. (See New and Nonofficial Remedies 1922, p. 326). Silvol is a compound of colloidal silver with an alkaline proteid and contains about 20 per cent. of silver. Parke, Davis and Co., Detroit. (*Jour. A. M. A.*, December 9, 1922, p. 2001.)

Arsenobenzol-Billon.—A brand of arsphenamine—N. N. R. For actions, uses and dosage, see New and Nonofficial Remedies 1922, p. 43. Arsenobenzol-Billon is marketed in ampules containing, respectively, 0.1, 0.2, 0.3, 0.4, 0.5, and 0.6 Gm. of arsenobenzol-Billon (*Jour. A. M. A.*, December 16, 1922, p. 2085).

"Esterol" Not Admitted to N. N. R.—"Esterol" is the proprietary and non-descriptive name under which the firm of Frederick Stearns and Co. markets benzyl succinate. Benzyl succinate has been admitted to New and Nonofficial Remedies. Its properties are similar to those of benzyl benzoate, but being insoluble it is almost tasteless and does not produce gastric discomfort. The Council on Pharmacy and Chemistry declared the proprietary brand of benzyl succinate sold as "Esterol" inadmissible because: (1) Stearns and Co. are neither the discoverers of the product nor of the therapeutic properties and therefore are not entitled to apply a proprietary name to the product. (2) The labels of the trade packages contain recommendations for the use of "Esterol" in dysmenorrhea, asthma, colic, hiccups and thus advertise it indirectly to the public (*Jour. A. M. A.*, December 16, 1922, p. 2102).

MORTALITY FROM CANCER.

THE Department of Commerce announces that the returns compiled by the Bureau of the Census show that over 76,000 deaths were due to cancer in the death registration area of the United States in 1921, and assuming that the rest of the United States had as many deaths from this cause in proportion to the population, the total number of deaths from cancer in the

entire United States for 1921 was 93,000, while for 1920 the number is estimated as 89,000, or 4000 less than for 1921.

The trend of the cancer death rate is upward, the rate for 1921 being higher than that for any earlier year in 23 of the 34 states. The cancer death rate in the registration area in 1921 was 86 per 100,000 population, against 83.4 for 1920. In comparing the death rate from cancer in one state with that in another, the bureau uses "adjusted" rates in order to make allowance for differences in the age and the sex distribution of the population, because, generally speaking, only persons in middle life and old age have cancer, so that a state with many old persons may be expected to have more deaths from cancer than a state with comparatively few old persons.

The highest "adjusted" cancer rate for 1921 is 99.6 per 100,000 population for the state of Massachusetts, and the lowest is 47.6, for the state of South Carolina. For a few states adjusted rates have been calculated separately for the white and colored population. In this group of states the highest adjusted cancer rate for the white population is 95.9 per 100,000 population for New York, and the highest rate for the colored population is 90.6, also for New York. The lowest adjusted cancer rate for the white population is 51.5, for Tennessee, and the lowest for the colored population is 36.4, for Florida.

The adjusted rates show that the northern states have comparatively high and the southern states comparatively low cancer mortality, while there is little difference between the adjusted cancer rates of the white and colored races of the same states.—*Science*.

TWO PRIZES OFFERED BY THE AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS.

In an effort to minimize as far as possible the suffering of animals at the moment of giving their lives for the benefit of mankind, The American Society for the Prevention of Cruelty to Animals of New York offers a prize of \$10,000 for a new device or apparatus which will best accomplish the humane slaughtering of animals for food purposes.

The Society also offers a second prize of \$5000 for a new device or apparatus which will, to the greatest possible extent, lessen or completely eliminate the suffering involved in the present methods of casting and securing food animals prior to the use of the knife as practiced in the slaughtering of cattle for the Jewish market. As at present conducted, the operation of casting an animal involves a great amount of suffering, owing to its being thrown

heavily and then hoisted by chains attached to its legs.

With a view to bringing about the invention of some still better devices for casting and stunning animals than those so successfully and generally used in Europe, these prizes are offered by the Society.

Circulars giving the terms of the competitions, which close April 30, 1923, may be had by addressing The American Society for the Prevention of Cruelty to Animals, 50 Madison Avenue, New York.

COMMITTEE ON HUMANE SLAUGHTERING.
THE AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS.

SMALLPOX.

A RECENT epidemic of smallpox in Denver, Colorado, furnishes another striking example of the folly of going without vaccination. According to the report of the health officer of that city there had been 246 cases with 81 deaths, approximately one-third. The anti-vaccinationist will perhaps tell us that among the 81 decedents, 9 had been vaccinated. But if they do they will not tell us that the periods that had elapsed since vaccination had been: 20 years, 35 years, 42 years, 44 years, 48 years, 50 years, 56 years, 60 years, and 72 years. Nor would they publish the truth that the other 72 deaths were of persons who had never been vaccinated.

Last year Buffalo had the first death from smallpox in twelve years, and that one came here from the west, ill with smallpox, and died. Buffalo's last smallpox epidemic occurred in 1888, when 44 died from this disease. Since then our citizens, especially the children, have been so thoroughly immunized by vaccination that there has been no chance for the disease to gain a foothold—nearly every case having been brought here from elsewhere.—*Buffalo Sanitary Bulletin*.

Correspondence.

PHYSICIANS IN NEED.

Mr. Editor:

A friend has handed me a clipping of a letter in the *Transcript* of Dec. 30th, signed Rev. Elwood Worcester and Dr. Samuel McComb. This is an acknowledgment to the generous response to an appeal in behalf of an "Aged Physician in Need." I said to the friend that it would be interesting to know how many physicians there were throughout New England who are in "need," and they are not so very "aged" either. There is the conscientious, hard-working type, whose practice has drifted away from them, and still they have been straited. There are others who have become victims of drug and dope, and whose service has become impaired and who may in some cases be a menace to their community.

The public is, in a great measure, responsible for both types. Medical education required in this day and for the past thirty years has been of a very costly form to the one entering that profession. The exactions required in practice increase from day to day, and for the most part only those physicians hitched up together through hospital or group practice associations can easily, or successfully keep up with these. There is a large class of those "independents" by nature or because of their situations in small places or in isolated districts who are put to a great disadvantage. On the other hand, these very independents who may be unfairly criticised by the public because of possible handicaps in surgical planning, may in their own districts be potential and veritable *Conés* so far as their real services are concerned. The public has been pampered with so that the service of these men who might be useful and efficient is being constantly and increasingly scrapped.

An agency designed to assist in the better upkeep of men going into such an expensive kind of education so necessary to the welfare of the public, whether in Brookline or Podnuk, is more and more an imperative necessity. If the rounded interests of the country are not supported, ultimately the city must die. How important is the proper distribution of repair shops and service stations to the social and industrial life of today? The circulating agent and carrier which courses everywhere over the highways and byways demands an even more extended distribution of gas and oil filling stations. The boulevard auto requires the same kind of fuel upkeep as the country road Ford. The elements of the blood stream which go to the heart and brain are the same as those which go to the extremities. The needs for the promotion of life are about the same. The courses must be kept free and open and smooth. The service and assembling plant at the centre is not entirely efficient if it does not tend to breed or distribute like stations and plants for district needs. Should we not profit in a field of health and human efficiency by want business engineering and philosophy and human physiology teaches. If we can provide for the supply and distribution of oil, machinery parts and engineering service to districts in need, we reduce the liability of unnecessary scrapping and junk. Over-alertness at the centre and lethargy at the extremities, congestion here and depletion there is a condition which must not exist for long if health at large is to be maintained.

Sincerely,

PAUL W. GOLDSBURY, M.D.

410A Boylston Street, Boston, Mass.

Jan. 3, 1923.

DIPHTHERIA AND THE SCHICK TEST.

Mr. Editor:

The widespread interest in the Schick Test and subsequent immunization by toxin-antitoxin has directed the attention of the public to the subject of diphtheria prevention and especially to the question of the occurrence of diphtheria in Schick negative reactors, whether due to natural or artificial immunity.

While those of us who have had any experience in the work know that the occurrence of diphtheria in these persons is so small as to be practically negligible and that immunization offers a reliable and harmless means of controlling diphtheria, there are certain persons who deny that this is true, asserting that immunization is not only useless but actually harmful and should be prohibited.

The best way to answer these people and to convince the public that immunization really does protect, is to make it clearly understood what is meant when it is said that a person has diphtheria.

As a preliminary it may be well briefly to con-

sider the varying conditions to which the word diphtheria has been applied and find, if possible, what factors have been common to all.

Before the general use of the laboratory as an aid to diagnosis when a person had diphtheria it meant that he had a membrane in his throat together with certain constitutional symptoms and was potentially capable of transmitting his disease to others; then, as the use of the laboratory became more general, the presence of *B. diphtheriae* was added to this. Gradually, the presence of a distinct membrane became less important and, if the laboratory reported *B. diphtheriae* in a culture from a person who had a "spot" on his tonsil or even a red throat, such person was considered to have diphtheria. In addition we have the carrier, *i.e.*, a person with no symptoms, local or constitutional, but who has *B. diphtheriae* in his throat.

There is another class of persons who have a membrane and constitutional symptoms, but whose cultures show some organism other than *B. diphtheriae*. This condition is vaguely called "septic sore throat," "streptococcal throat," "follicular tonsillitis"—in fact almost anything except diphtheria.

Enough has been said to show that two factors appear to be constant in our idea of diphtheria: the presence of *B. diphtheriae* and the potential capability of transmitting the disease to others and, also, that if either of these is shown to be lacking the patient is not considered to have diphtheria.

Now let us turn our attention to the carrier, whose importance has greatly increased with the more general application of immunization, and especially in connection with this very question of the occurrence of diphtheria in Schick negative reactors, whether natural or immunized.

Cecconi in Boston during the past year cultured 2063 children who presented themselves for test and immunization and found that 160, or 6+ per cent., had in their throats organisms morphologically resembling *B. diphtheriae*, but he also found that in every instance these organisms were non-virulent, which, according to our present knowledge, means that they could not transmit diphtheria to others, thus lacking one of the factors which we have shown to be essential to our idea of diphtheria.

Assuming that the same ratio holds good for the total number of children tested by Cecconi, there are over 1800 non-virulent carriers among them. It is, of course, perfectly possible that any one of these 160 known carriers may, after immunization, develop a sore throat or even a slight membrane, and a culture taken from such throat would show *B. diphtheriae* together with other organisms. The culture would, of course, be reported positive but it would be manifestly improper to call it a case of diphtheria in a Schick negative reactor. The proper characterization would be a streptococcal throat or follicular tonsillitis occurring in a non-virulent carrier who was a Schick negative reactor.

While it would be impracticable to culture and test for virulence, if necessary, every child who comes up for test and immunization, it is possible to do a virulence test on every culture sent in for diagnosis from a Schick negative reactor, provided the culture is positive, and if the result shows it to be non-virulent to release the case at once as not a case of diphtheria. If this were done it would soon be found that the number of diphtheria cases in Schick negative reactors would reach the vanishing point.

Even should the test show that the *B. diphtheriae* were virulent, the case is simply that of a virulent carrier, who must be isolated like any other untested carrier; he is a danger to others but not to himself.

FRANCIS GEORGE CURTIS, M.D.,
Chairman, Newton Board of Health.

SAINT AMBROSE AND EVOLUTION.

Mr. Editor:

In the BOSTON MEDICAL AND SURGICAL JOURNAL of December 21, 1922, under the title of "Correspondence," I have noticed an article written by Dr. J. Danforth Taylor, entitled "Darwinism and Evolution." He quotes as an authority on the evolutionistic theory Saint Ambrose. According to Dr. Taylor, Saint Ambrose—in warding off the arguments that Symmachus was expounding in behalf of paganism—makes the statement that in his inquiries he saw that the supreme law of nature was "change." To quote Saint Ambrose, he adds: "Was religion alone to be an exception to the law?" "Were they to cling to old rites and legends when the voice of nature on every side spoke of change, advance, the death of the old, the birth of the new?" Dr. Taylor concludes from his quotation: "St. Ambrose won, but the church ever since has forgotten his arguments. It has proven too weak."

I shall refute Dr. Taylor's allegations: (1) Lack of argumentative ability; (2) St. Ambrose taught contrary to evolutionism; (3) ministry has the right to say what the origin of mankind was.

Firstly, Dr. Taylor in his article lacks argumentative ability, whether maliciously or unconsciously. I say not. However, any lawyer wishing to prove to the court that his arguments are correct and that his side should be upheld by the court, will always quote the statute, chapter, title and paragraph as an argument of his honesty in quoting law either for his client or against the opposing side. Did Dr. Taylor quote the book of Ambrose, whence the quotation? No! Why? Because any one could consult that book and see from the context that St. Ambrose had altogether a different subject matter from evolution, and consequently the words quoted were not said to expound evolution, but to manifest some other truth. The subject matter of St. Ambrose was, paganism must be abandoned and Christianity must be embraced. St. Ambrose did not condemn all of the pagan belief, because every pagan—as St. Paul says—is conscious of right and wrong; his conscience tells him what the commandments of God are. Furthermore, pagans realized that they must worship—and what more—publicly a Numen or deity, which rules the earth and is different from the world itself. These things were not to be forsaken by the pagans, according to St. Ambrose. St. Ambrose simply tells them they must change methods of worship, and some other corruptions that were creeping into the correct manner of divine cult. And as a corroboration, he tells Symmachus that they cannot hold unto these minor rituals just because someone else had them, because these can undergo a change as well as things in nature undergo a change. St. Ambrose was not speaking there of man and his origin.

Secondly, St. Ambrose—on a given occasion—speaks of the origin of man, "On Paradise," Chapter 375. Migne's Edition of the Latin Fathers, Vol. xiv, 298, and this is what he says: "Nor was this said in vain—that is to say, without reason—that woman was not made of the same earth from which Adam was made and formed, but that she was made of Adam's rib, that we might know that in man and woman there is one and the same nature, one and the same source or font of the human species." Note here what he says: Adam was made of earth, Eve was made of Adam's rib and as a consequence we have the argument—he says—that there is only one human nature and that the rest of humanity have their origin from Adam and Eve. St. Ambrose goes on to say: "Therefore, in the beginning there were not made simultaneously, man and woman, nor two men, nor two women, but firstly man and of him a woman, God wishing to make man one nature, from

the beginning of creation, made of this creature the source of many and different characters of humanity." In other words, Adam was the source of Eve, and they both were the source of the remaining members of the human race. This is St. Ambrose's doctrine, and what more, it is diametrically opposed to evolutionism.

Thirdly, the ministers of God have the right to set down the rules against evolutionism, and Dr. Taylor in saying that the ministers have not such a right is making as foolish an assertion as the skipper of the boat, that is being tossed about unmercifully by the waves, would say that the man in the lighthouse has no right to tell him that there are rocks in the vicinity and therefore danger, and as a consequence, that he must keep his ship off that course. The man in the lighthouse may be a simpleton, but, nevertheless, that lamp is authority to any wise skipper. The ministers of God do not have to dwell upon the word of God to fathom it, because such a thing is impossible. They take the word of God and repeat it to the faithful and prudent, and these in turn do not try to fathom inexplicable mysteries but abide by this word, not because Reverend Smith or Reverend Carmichael had said so, but because God had said so, and that through his representatives, the ministers of God.

I—as a Catholic priest—would not have said a word on the subject, had not a Catholic doctor and dentist asked me as to the veracity of such statements about St. Ambrose, one of the luminaries of the Catholic Church. I deemed it my duty to defend the Catholic Church and St. Ambrose from such falsifications as were shown in that number of the JOURNAL. I hope you will allow me space for the good of the Catholic doctors that subscribe to your valuable booklet.

Sincerely yours,

ANDREW T. F. NOWAK.
Greenfield, Mass., January 4, 1923.

HARVARD MEDICAL SCHOOL FACULTY APPOINTMENTS.

Mr. Editor:

I take pleasure in informing you that at the stated meeting of the Board of Overseers of Harvard College, held January 8, 1923, the Board voted to consent to the votes of the president and fellows, electing,

Hans Zinsser, Professor of Bacteriology and Immunology, to serve from September 1, 1923.

Howard Augustus Lothrop, Acting Professor of Clinical Surgery, to serve from November 27 for the remainder of 1922-23.

Francis Howard Lahey, Professor of Clinical Surgery, to serve from September 1, 1923.

David Cheever, Associate Professor of Surgery, to serve from November 27, 1922.

*Charles Allen Porter, Homans Professor of Clinical Surgery, to serve from November 27, 1922.

Very truly yours,

WINTHROP II. WADE, Secretary.

NEW WARDS FOR MIDDLESEX HOSPITAL, LONDON, ENGLAND.

January 7, 1923.

Mr. Editor:

In view of the awakening of the present-day physician to the importance of that branch of medicine covered by mental diseases, I believe it will be of interest to know that two new wards for male and female patients are about to be opened at the Middlesex Hospital, London, England, for the treatment of early mental cases by members of the staff of St. Luke's Hospital under the care of its trained nurses. This is the first instance where this admirable scheme of coöperation has been established in England of

an alliance between a large general hospital and a registered hospital for mental diseases. The early cases will be admitted to the new wards of the Middlesex Hospital on the same footing as ordinary patients in the general wards.

Very truly yours,

L. VERNON BRIGGS.

THE NEW ENGLAND OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

The annual meeting of the New England Otological and Laryngological Society will be held on Friday evening, January 19, 1923.

The annual dinner will be served at 7 P. M. at the University Club, 270 Beacon Street.

At 4:30 P. M. there will be a clinical meeting at the Massachusetts Charitable Eye and Ear Infirmary under the direction of the staffs of the Massachusetts Charitable Eye and Ear Infirmary and the Massachusetts General Hospital Throat Department.

FRANK E. KITTEDGE, *President*,
JOHN H. BLODGETT, *Secretary*.

390 Commonwealth Avenue, Boston.

RECENT DEATHS.

DR. IRVING SYLVESTER FOGG, a retired Fellow of the Massachusetts Medical Society, died at his home in Norwood, December 29, 1922, at the age of seventy.

He was born in Norwood August 30, 1852, was educated in the schools of the town and at Harvard Medical School in the Class of 1877. He joined the State Medical Society in 1880, practising in his native town until his retirement in 1918.

DR. ASA ADGATE ARTHUR, a former practitioner in Marshfield, died on Christmas Day at his home in Roxbury, at the age of seventy-nine. He was a native of Keyesville, N. Y., where he was born April 1, 1843. He graduated from Keyesville Academy and was a student in medicine at the University of Vermont, completing his medical education at the Bellevue Hospital Medical College in 1865. He practiced at Elizabethtown, N. Y., and Vergennes, Vt., before settling in Marshfield, where he was in active practice for thirty years.

He is survived by his widow, who was Martha Miles, of Addison, Vt., and by two daughters.

DR. MICHAEL FRANCIS SULLIVAN died at his home in Lawrence, Dec. 26, 1922, at the age of sixty-five. He was a native of Lawrence, at one time a member of the board of overseers of the poor, and a representative. In earlier time he conducted a drug store, and in later years engaged in the real estate business. He had a very fine library on Irish history and subjects connected with Ireland, and was a member of many Irish societies and charitable organizations. He graduated in medicine from the Boston College of Physicians and Surgeons in 1891, and joined the state medical society the same year.

He is survived by two sisters and a brother.

NOTICE.

THE ANNUAL MEETING OF THE BOSTON TUBERCULOSIS ASSOCIATION will be held in the hall of the Twentieth Century Club, 3 Joy Street, Boston, on Thursday, January 25, at 3 P. M. The report of the president, Dr. John B. Hawes, 2d, will include the presentation of lantern views of the Prendergast Preventorium for Children. The speaker of the afternoon will be Dr. David R. Lyman, director of the Gaylord Farm Sanatorium at Wallingford, Conn. General public and medical profession invited.

SOCIETY MEETINGS.

DISTRICT SOCIETIES.

A list of society meetings is herewith published. This list will be changed on information furnished by the secretaries of the societies, and will appear in each issue.

Barnstable District:—Hyannis, February 2, 1923 (Annual Meeting); May 4, 1923.

Bristol South District:—Fall River, May 3, 1923.

Essex North District:—Lawrence, Y. M. C. A. Building (Annual Meeting), May 2, 1923.

Meetings of the Suffolk District and the Boston Medical Library, at the Library:

January 31, 1923:—Medical Meeting. "Epidemic Encephalitis," Dr. E. W. Taylor, Boston.

February 28, 1923:—Medical Meeting. "Colitis," Dr. Henry F. Hewes, Boston.

March 28, 1923:—Surgical Meeting. "A Review of What Surgery Can Accomplish in Diseases of the Thoracic Organs, with a Forecast of the Future," Dr. Howard Lilienthal of New York.

April 25, 1923:—Annual Meeting. Election of Officers. "The Record of the Past Twelve Years in Syphilology, with a Forecast of the Future." A series of 10-minute papers. Dr. C. Morton Smith, Boston, will preside.

The Springfield Academy of Medicine meets the second Tuesday of each month. Schedule of speakers includes the following names: Dr. Alexis Carrel, Dr. W. B. Long, Dr. J. W. Williams, Dr. W. S. Thayer, and Dr. Barton Cooke, Hist. The date for each speaker has not been assigned.

Middlesex North District:—Meeting, Wednesday, January 31, 1923.

Middlesex East District:—January 24, 1923. The Nursing Problem. Speaker to be announced later.

March 21, 1923:—Mental Factors in Childhood. Paper by Dr. William Hooley.

April 18, 1923:—Interpretation of Laboratory Findings. Papers by Dr. E. G. Crabtree and one to be announced later.

May 9, 1923:—Annual Meeting.

All meetings except the Annual Meeting will be held at the Harvard Club in Boston. A. E. Small, Secretary.

Worcester District meetings are scheduled as follows:

February 14, 1923:—The meeting will be held at the Worcester City Hospital at 4.15 P. M. The program will consist of a series of papers by members of the staff.

March 14, 1923:—The meeting will be held at St. Vincent's Hospital at 8.15 P. M. The program will consist of a series of papers by members of the staff.

April 11, 1923:—The meeting will be held at Memorial Hospital at 8.15 P. M., and the program will consist of a series of papers by members of the staff.

May 9, 1923:—Annual Meeting and banquet.

STATE, INTERSTATE AND NATIONAL SOCIETIES.

NEW ENGLAND PEDIATRIC SOCIETY:—The following are the dates for meetings the coming season. Each meeting is on the second Friday of the month at the Boston Medical Library: February 9, March 9, April 13 and May 11.

January, 1923:—Massachusetts Society of Examining Physicians (date and place undecided); Hilbert F. Day, Secretary.

January, 1923:—Massachusetts Association of Boards of Health, January 25, Annual Meeting, Boston; W. H. Allen, Mansfield, Mass., Secretary.

January, 1923:—Boston Association of Cardiac Clinics. Meeting January 18, 1923, at 8.15 P. M., Boston Lying-In Hospital (new hospital). Subject: Pregnancy and Heart Disease.

February, 1923:—New England Dermatological Society Meeting, February 14, 1923, at 3.30 P. M., in the Skin Out-Patient Department, Massachusetts General Hospital; C. Guy Lane, Secretary.

February, 1923:—Boston Medical History Club will meet the third Monday of this month.

March, 1923:—Massachusetts Society of Examining Physicians (date and place undecided); Hilbert F. Day, Secretary.

March, 1923:—Boston Association of Cardiac Clinics. Meeting March 15, 1923, at 8.15 P. M., Boston City Hospital. Subject: Prevention and Relief of Heart Failure.

March, 1923:—Boston Medical History Club will meet the third Monday of this month.

April, 1923:—New England Dermatological Society meeting, April 11, 1923, at 3.30 P. M., in the Surgical Amphitheatre, Boston City Hospital; C. Guy Lane, Secretary.

April, 1923:—Massachusetts Association of Boards of Health, April 26, 1923, Boston; W. H. Allen, Mansfield, Mass., Secretary.

April, 1923:—Boston Medical History Club will meet the third Monday of this month.

May, 1923:—Massachusetts Society of Examining Physicians (date and place undecided). American Pediatric Society meeting, May 31, June 1 and 2, 1923, at French Lick Springs (Hotel, French Lick, Ind.); H. C. Carpenter, Secretary.

May, 1923:—Boston Association of Cardiac Clinics. Meeting May 17, 1923, at 8.15 P. M., Children's Hospital. Subject: Rheumatism and Chorea and Heart Disease.

June, 1923:—American Medical Association, San Francisco June 25-29, 1923; Alexander R. Craig, Chicago, Ill., Secretary.

July, 1923:—Massachusetts Association of Boards of Health, July 26, Nantasket; W. H. Allen, Mansfield, Mass., Secretary.

*Deceased September 2, 1922.